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Chemical Trade Journal
Supplement, Mar. 31, 1900.

THE

CHEMICAL TRADE JOURNAL:

A WEEKLY NEWSPAPER DEVOTED TO

The Commercial Aspect of the Chemical and Allied Industries.

EDITED BY

GEORGE E. DAVIS,

FORMERLY ONE OF HER MAJESTY'S INSPECTORS OF ALKALI WORKS,
CHEMICAL ENGINEER AND CONSULTING CHEMIST.

VOLUME XXV.

[JULY TO DECEMBER, 1899.]

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LATE ADVERTISEMENT.

VITRIOL CHAMBERS for pulling down.—Offers Wanted for Iron, Wood, and Leadwork of Two Vitriol Chambers, new within last two years.—Further particulars from "Liquidator," *Chemical Trade Journal* Office, Manchester.

Notices.

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Readers are invited to forward items of intelligence, or cuttings from local newspapers, of interest to the trades concerned.

Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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CURRENT TOPICS.

EMPLOYERS' LIABILITY AND INSURANCE.

IT is now practically twelve months since the Workmen's Compensation Act came into force, and it is interesting to note how the insurance rates of companies undertaking this class of business have declined during this period.

Before the Act was passed Mr. Chamberlain assessed the risk at 4s. per hundred. Insurance offices started by asking 30s. Thanks to the competition of non-tariff offices, however, this figure was soon reduced to 15s., and lower. This was still a long way in advance of Mr. Chamberlain's estimate; but more recently, the eagerness of companies to secure business has led to still further reductions, until we now hear of one or two large concerns connected with the chemical trade having covered all their risks at 2s. 6d. to 3s. It is highly probable that when the scramble for business is over the rates will advance again somewhat; but even then rates will be such as to show that the risks of industrial accidents were considerably over-estimated. At the present rates one is almost inclined to wonder how such comparatively trivial risks could have been "worked" by politicians to make it appear that they were conferring such colossal benefits upon the working man. The personal advantage is indubitable in the event of a mishap, but it would seem that the liability to mishaps has been exaggerated.

There is just one other point manufacturers will do well to bear in mind. At present very tempting rates are being offered at which, in some cases, it is not very easy to see how they can spell profit to the insuring company. It is quite possible, therefore, that the lowest rate may not be the cheapest, unless the office is as sound as the rate is low; because it must not be forgotten that if the insuring parties are not able to meet their obligations the entire responsibility reverts to the employer. In this case inability is no more an excuse than the *ignorantia juris* of the legal maxim.

SECRET COMMISSIONS.

In connection with the Bill for the suppression of illicit commissions, introduced by Lord Russell of Killowen, many instances of inducement and backsheesh in commercial affairs were brought to light, and some professions did not escape scatheless; but of the profession which will be most instrumental in framing and enforcing the commission-crushing laws, very little has been said. The following incident, which is vouched for by good authority, reveals a prospect of quietly "respectably" acquired, perquisites, which is calculated to make the receivers of tips in trade shiver with disappointment or burn with covetousness. An estate was placed with a firm of auctioneers for sale. In due course a suitable offer was received from a solicitor, and the vendor promptly waited upon the principal of the firm of auctioneers who were acting for him, when the following conversation ensued:—

The Principal: "There is a condition attached to the sale which I

must mention. The price is not to be entered on the conveyance until after you have signed it."

The Vendor: "What do you mean?"

The Principal: "Well, the purchaser is a solicitor who is a trustee for infant children, and I suppose that, after the conveyance is signed, he may put a higher figure into the deed than that which you receive."

The Vendor: "This looks uncommonly like a fraud; and I don't know of anything which can justify you in making such a proposal to me."

The Principal: "That depends on how you look at it. Neither the solicitor nor I look upon it as a fraud. It is simple business."

Oh, yes! very simple—a trifle too simple to be left at large without the custodian of the public morality to take care of it. But let us hasten to add that every credit is due to the vendor, for he declined to see it in a "simple business" light, and the purchaser of that estate when it was sold was not the trustee-solicitor. It is often said that the "Law 's a Hass," but there is nothing very assinine about its minions. The relationship is closer to the fishes, we should think, and the genus *Carcharodon* in particular.

IMPROVEMENTS IN THE MANUFACTURE OF SALT.

ANENT the failure of the Cheshire Salt Selling Combine, a correspondent writes pointing out that much might be done by making for greater economy in production, and gives the following particulars of a patented new process for the manufacture of common salt. According to this process, concentrated brine is cooled in a refrigerator to a temperature of about 9 deg. Fahrenheit, causing it to deposit (in round figures) 9 per cent. of salt crystals containing only 38 per cent. of water. The weakened residue then returns through temperature interchangers to an evaporator which is heated by high pressure steam generated from fresh water. In this evaporator the mother liquor, which has been freed of any scale-making impurities by previous treatment at a high temperature, is partly concentrated under pressure, and the resulting steam employed to heat the coils of a second evaporator.

After leaving No 1 evaporator the hot brine enters a vessel into which the fresh brine, which has received a preliminary heating, is also fed, and its temperature raised by admixture with about four times its own bulk of the hot mother liquor, causing it to deposit its scale making impurities.

The brine is now fed into No. 2 evaporator, wherein it is further enriched to a degree corresponding with a concentrated solution at the normal temperature. It then flows through the temperature interchangers back to the cooler, whereafter the cycle of operations is repeated. The steam generated in No. 2 evaporator drives the refrigerator and dries the crystals deposited.

The method has been tried on a small working scale, and we shall be pleased to put any who are interested in communication with the patentee.

ARGENTINE BORAX.

THERE are in circulation various editions of the prospectus of the Argentine Borax Company, Ltd., which has been formed with a capital of £150,000 in £1. shares. We say "various editions" because copies of the prospectus which have come to hand differ from one another in material particulars. The company has been formed for the purpose of acquiring and working a borax property, said to be "well-known," situated in the Department of Molinos, in the Province of Salta, Argentine Republic. Salta will be remembered by many people as the temporary Mecca of a financier famous in his day. It is, perhaps, a singular coincidence that at the very time when these prospectuses relating to a Salta property are in circulation there should arrive in this country the Message of the Governor of Salta to the population of the province. The Message has an important bearing upon the outlook for the Argentine Borax Company, for the reason that it pictures the Provincial Government as being in a very impecunious condition, with a deficit of 60,000 dols. When it is remembered that Argentine Provincial Governments have special methods of their own for raising money when they badly want it, it will be understood that an English company which gets to work in Salta under existing circumstances may find the attentions of the provincial tax collector a good deal more pressing than welcome.

It will have to be borne in mind—for the fact is not referred to or explained in the prospectus of the Argentine Borax Company—that a new concern like this will find itself open to face a very powerful competitor which is already in the field. Not only so, but while the new company will acquire deposits within a certain distance of Salta—a comparatively inaccessible town in the north of the Argentine Republic—the existing borax company can depend upon readily-accessible resources situated in Peru, Chili, Asia Minor, and the United States. It might also be asked how it is that Argentine borate of lime can now compete with material from other sources when it was unable to do so at a time when the ruling quotation was higher and the gold premium double what it is at present. As for the statement that "in the United States the company could earn sufficient to pay a good dividend on its capital," it would be more satisfactory if the prospectus added some particulars of how this is to be done in face of the protection which is accorded to native producers. With these difficulties to be surmounted it is comparatively easy to understand why underwriting should be on offer at such a rate as 10 per cent in cash and 10 per cent. in fully-paid shares on the nominal amount underwritten.

The *Manchester Courier*, in its "Notes on 'Change," says that "an expert's trip through the Puna de Atacama, in connection with the borate deposits there, has resulted in very discouraging reports. Mule transport, it is said, chokes every serious attempt at enterprise in that part of the world. The facts are interesting as a sidelight on the prospectus of the Argentine Borax Company, which is still in 'private circulation.'"

The expert to whom our contemporary refers is, we believe, Mr. Arthur Gilderdale, who fears that very little will be done at the present time in borax, owing to the fall of the price of borates from £12. a ton to about £9. Gold, he seems to think, there is but little of in the districts through which he has travelled. A Frenchman is known to be doing some washing there, and not making much at it. With regard to the much-talked-of railway, he does not think that it will come to anything, as there is nothing to pay the cost of running trains over a completely unpopulated region. The facts shed a useful sidelight on the Argentine Borax scheme.—*Financial News*.

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for May, 1899. The total shipments were 87,216,379 gallons, compared with 86,431,145 gallons in 1898. The total for the 11 months ending May, 1899, were 850,350,510 gallons, against 929,100,448 gallons in the same period of 1898. The details of the shipments are as follows:—

			Gallons.
		CRUDE PETROLEUM.	
Total,	May,	1899	5,624,839
,,	,,	1898	9,966,687
		NAPHTHAS.	
Total,	May,	1899	1,208,104
,,	,,	1898	1,884,238
		ILLUMINATING.	
Total,	May,	1899	70,688,476
,,	,,	1898	66,439,994
		LUBRICATING AND PARAFFIN.	
Total,	May,	1899	5,825,122
,,	,,	1898	5,812,352
		RESIDUUM.	
Total,	May,	1899	3,869,838
,,	,,	1898	2,330,874

REPORT ON EXPLOSIVES.—The twenty-third annual report of Her Majesty's Inspectors of Explosives has just been issued. During 1898 the inspectors paid 184 visits to the factories, which now number 143, all of them having been visited once, and about one-third of them a second time. A very high standard of excellence has been gradually reached since the passing of the Explosives Act, 1875, and this standard has, as a rule, been fully maintained during the past year. The inspectors believe that, taken as a whole, the factories for explosives in the United Kingdom will compare extremely favourably with any other factories, whether in the kingdom or abroad. Forty-seven accidents occurred in manufacture during the year, causing two deaths and injuring 15 persons. The total number of accidents by fire or explosion, of which the Department had cognisance, during the year was 194, causing, so far as was known, 52 deaths and injuring 217 persons. It was, however, satisfactory to note that more than four-fifths of the accidents causing death or personal injury occurred in the use of explosives and under miscellaneous conditions, to which the controlling provisions of the Act did not apply.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Aerating Filterbeds. S. H. Adams. 12,182. June 12.

Process and Apparatus for Evaporating Brine. R. R. Haddon. 12,226. June 12.

Recovering Bye-products in the Manufacture of Coke. C. Still and The Gewerkschaft Konig. 12,232. June 12.

Improvements in the Manufacture of Artificial Manure. A. Wenck. 12,233. June 12.

Apparatus for Purifying Gas. N. A. Guillaume. 12,295. June 13.

Converting Ferrous Chloride into Ferric Chloride, more especially for Use in connection with the Separation of Bismuth and Antimony from their Sulphide Ores. J. Ranald. 12,308. June 13.

Nitro-explosives. A. J. Boult. 12,316. June 13.

Treatment of Galena and other Sulphide Ores. K. Heberlein. 12,323. June 13.

Treating Mineral Resin and Tar Oils. F. Boleg. 12,349. June 13.

Treatment and Purification of Sewage. W. B. G. Bennett. 12,381. June 14.

Explosives. F. J. W. Lindeman. 12,392. June 14.

Manufacture of Explosives. J. Y. Johnson. 12,428. June 14.

Evaporating or Concentrating Apparatus. J. McNeil and C. McNeil. 12,459. June 15.

Secondary Batteries. O. Behrend. 12,478. June 15.

Extracting Indiarubber or Gutta percha. J. G. Deiss. 12,538. June 15.

Manufacture of Explosives. C. H. Curtis and A. H. Durnford. 12,591. June 16.

Manufacture of Colours Developed by Chromium Compounds on Wool Fibre. O. Imray. 12,614. June 16.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Purification of Caustic Alkalies. G. W. Johnson, 47, Lincoln's Inn Fields (communicated by Chem. Fab. Griesheim, Frankfurt, Germany). Eng. Pat. 11,650. May 23, 1898.

Experiment having proved that the diffusion ratio is much higher in strong solutions of impure caustic lyes than in weak ones, advantage is taken of the fact to purify caustic soda and potash lyes of about 50° Bé. from the other impurities present by dialysis, either with or without a membrane. Several methods of conducting the diffusion in water are described, and several tables are given showing the results obtained by direct experiment.

Improvements in Apparatus for, or in Method of, Utilising the Spent Liquor from Esparto, Wood Pulp, and similar Mills as Fuel. R. Cremer, 25, Cookridge-street, Leeds. Eng. Pat. 11,974. May 26, 1898.

The liquor is evaporated in a horizontal revolving furnace, composed of a lined cylinder mounted on rollers, into one end of which the liquor and fuel, such as petroleum or coal dust, are introduced. The cylinder can be tilted sufficiently to cause the fused chemicals to flow into the flue, into which the other end of the furnace opens. The bottom of this flue is cupped to hold the fused charge (which can be drawn off at intervals), while the gases go forward through one or two dust-collecting flues, and finally pass under a tubular boiler. If desired, the gases can of course be utilised in other ways for heating purposes. There is one figure.

Improvements in the Manufacture of Alkalies and in Means applicable for Use therein. J. Hargreaves, Farnworth-in-Widnes, Lancashire. Eng. Pat. 15,502. July 14, 1898.

This patent refers essentially to the mechanical construction of the cell, and is illustrated by eight figures, giving details of the cathodes and the cell in general. The shape of the cell is rectangular, and the brine entering the anode chamber at the bottom at one end, escapes at the surface at the other end, together with the chlorine gas. This is separated in another receptacle, and the weak brine is re-saturated and returned to the cell. The carbon dioxide gas used is freed from sulphurous acid gas by saturating with moisture while hot, and then cooling, so as to condense the steam. The presence of chlorate or hypochlorite in the electrolyte is avoided by adding sufficient hydrochloric acid to exactly decompose the compounds, the precise quantity being determined by analysis.

Improvements in and Apparatus for Distilling Tar or Oil or the like, and for Distilling or Concentrating other Liquid or Semi-liquid Matters. P. Tack, Rue du Beau Site, Brussels, Belgium. Eng. Pat. 16,045. July 22, 1898.

The characteristic feature is the minute separation and distribution of the tar or oil over a succession of heated surfaces to obtain a rapid and continuous supply of gases and vapour, which are removed at once and treated in a separator. The heating surfaces, on to which the tar is sprayed, are heated by super-heated steam, the tar flowing over the pipes or channels conveying the steam, and escaping to the next chamber below, where the same procedure is repeated. There are seven figures showing the general construction of the plant, and also a considerable number of details.

Improvements in the Manufacture of Inflammable Pastes suitable for Matches. H. Sévène and E. D. Cahen, both of 24, Rue Lafayette, Paris. Eng. Pat. 16,134. July 26, 1898 (under International Convention February 1, 1898).

The basis of the mixture is sesquisulphide of phosphorus (P_4S_8), which is mixed with chlorate of potash and the usual binding and retarding ingredients. The matches strike anywhere, and the sesquisulphide resists moisture and the atmosphere. It is harmless to health, according to the patentee. In results it acts quite differently to the previously tried mixtures of amorphus phosphorus and sulphur. There is no reference to the method of preparation.

Manufacture of a New Chemical Salt of Valuable Antiseptic Properties. A. E. Berry and A. Boake, Roberts, & Co., Ltd, Warton-road, Stratford, London, E. Eng. Pat. 15,819. July 19, 1898.

Formaldehyde-potassium-metabisulphite is prepared by mixing solutions (preferably in equal volumes) of formaldehyde and potassium metabisulphite. The mixed solutions are concentrated to about 1 45 or 1·5 sp. gr., taking care that the temperature does not exceed 200° F. On cooling, the desired salt crystallises out. The addition of acids or alkalies liberates formaldehyde and sulphurous acid.

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for April, 1899, as compared with April, 1898 :—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	9,805	6,164	3,059	1,640
Sweden and Norway	13,543	7,806	2,751	1,617
Germany	12,940	8,441	3,275	2,261
Holland	7,024	8,879	1,616	1,734
France	4,686	2,135	1,553	728
Spain and Canaries	13,999	32,595	4,608	10,424
Italy	21,379	25,538	6,774	7,068
United States	93,851	61,758	16,133	11,341
Australasia	9,206	14,281	2,927	4,190
British North America	21,400	10,614	6,008	2,326
Other countries	90,125	107,991	26,313	31,588
Total	297,958	286,202	75,017	74,917

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	66,298	79,383	18,299	18,349
Other countries	31,511	35,462	9,651	10,371
Total	97,809	114,845	27,950	28,720

NITRATE DUES.—PROPOSED REDUCTION.—Among many suggestions for facilitating the shipment of nitrate, it is affirmed that there are 30,000,000 quintals of nitrate shipped annually from Chili, which give 30,000,000 shillings of freight and employ 20,000 sailors. Let a reduction, it is suggested, of 20 cents per quintal be granted in the case of all nitrate shipped under the Chilian flag, and sufficient stimulus will, it is contended, be given to cause the formation of a line, or lines, of steamers carrying the national flag and manned by Chilians. Whether this contention be true or not, the plan may not commend itself to bondholders, as a diminution in nitrate dues would cause a shrinkage in the national revenue derived therefrom.

GRABBING THE SEED OIL TRADE.

THE MYSTERIOUS AMERICAN SYNDICATE.

THE Standard Oil Company of America having recently been ordered to "dissolve" under the United States Anti-Trust Laws, it is evidently determined to increase its "grip" upon we poor unfortunates. It would seem that, having received a rude shaking over the flash-point of petroleum, and having only just gained a few moments breathing space at the last moment by most desperate and blatant "lobbying," it has been actively at work increasing its influence here. Not content with the enormous control which it has obtained in the States over almost every important industry, it has now been busy forming a vast Trust in England, the object of which is to control the seed oil and cake trade of this country.

The secrecy maintained is characteristic of the prime movers. Last March we announced that "a representative of an American syndicate" was busy trying to amalgamate the oil and feeding-stuff industry, but serious doubts were prevalent as to whether the Hull firms would be disposed to sink their identity (*C.T.J.*, 616, p. 176).

With the close of June we learn that the American Syndicate is virtually the Standard Oil Co. that we have been fighting so strenuously, and that "the great combination in the English seed-crushing industry, which Mr. Bartlett, of New York, had in hand, is now *de facto*, seventeen firms in London, Glasgow, Hull, Liverpool, Rochester, Gainsborough, and other places having agreed to amalgamate, with an aggregate capital of two and a half millions sterling. Six Hull firms are reported to have joined the amalgamation—Messrs. Willows, Holt and Willows, Messrs. Stuart & Gregson, Messrs. Pearson & Bailey, Messrs. Stephen Bros., Messrs. Wright Bros. & Co., and Mr Edwin Robson. The Hull directors named are Messrs. James Stuart, Harrison Holt, E. Robson, and Pearson."

The *Times*, which has all along favoured the low-flash tactics of the S. O. Co. in regard to petroleum, drops this important piece of information into the promiscuous shade of its closely-packed Money Market report. The nonchalant, unconcerned tone of the last line is distinctly "rich":—"Arrangements have now been made for bringing out a company which is to consolidate many of the leading oilseed crushing mills of the kingdom. It comprises fifteen of the most important mills with the greatest crushing capacity. Of these three are located in London, seven in Hull, two in Liverpool, and three in the north of England and Scotland. The capital of the concern will be two and a half millions sterling, the whole of which has been underwritten by the American syndicate which has brought this amalgamation about. The Standard Oil people are largely interested."

We should like to point out that the S. O. Co. never makes a business proposition which will benefit its confreres one penny unless it can benefit itself to the extent of 6d. or thereabouts. We therefore want to know

WHAT IS THE PURCHASE PRICE

or the "consideration" that these active underwriters intend to secure for themselves? We would also point out that it is not only the mills that have the "greatest crushing capacity," to quote the *Times*. The chief promoters of this Combine have an unparalleled (but unenviable) reputation in this line, as regards all competition or industries that are "inconvenient." Here are

A FEW OF THE "CRUSHING" METHODS

which have come to light this month before the Federal Industrial Commission, which has been inquiring into the ways of the Standard Oil Company:—

EIGHT KINDS OF OIL FROM TWO TANKS.

(1.) The witness testified that during the period of his service considerable competition was encountered from the Producers' Oil Company, the Argand Oil Company and others. As to the company's methods in meeting this competition Mr. Clark said:

"We provided a wagon and put a man on it to undersell the agent of the Argand Company. We put the price of oil at 7 cents, and soon drove out the Argand Company. As soon as we had done this we took our man off and put the price up to 12 cents. Subsequently the Argand Company put a man on again and we played the 'farmer racket,' underselling him along his route from a barrel on a cart.

"We sold, or pretended to sell, eight grades of oil, but we drew them all from two tanks. We sold O. S. T., prime white, water white, red star water white, crystal light, eocene, hyperion and silver light. Prices for these grades or brands range from 6 to 10½ cents, the difference being about one-half cent per gallon per grade."

ADULTERATION ORDERED FROM HEADQUARTERS.

(2.) Other products, including lubricating oils, turpentine, etc., were also handled and the latter was frequently adulterated with gasoline. The adulterations described were made in strict accordance with "instructions from headquarters," and the witness said that employés were allowed no discretion in such a transaction.

(3.) At this point Commissioner Kennedy interrupted the witness to ask him if, during the seven years he had followed the practices described, it had never occurred to him that he was not acting honestly.

"Oh, yes," replied the witness, "and I told the bosses so, but they told me that my duty was simply to obey orders and not to do any thinking or talking about the company's business."

A BOGUS RIVAL TO KILL COMPETITORS.

(4.) At Columbus a strong prejudice against the Standard Oil Company grew up, and it became necessary to take some steps to prevent loss of trade. Accordingly, the Standard Oil Company organised the Shoemaker Oil Company and put it in the field apparently as a rival. The Shoemaker sold at lower prices than any other company except the Standard Oil, and those who were prejudiced against the latter company gave their patronage to the Shoemaker wagons. All the oil came from the tanks of the Standard Oil Company, but the barrels were branded "Shoemaker Oil Company."

BROKEN PROMISES—THE WORKHOUSE.

(5.) The manager of the Standard Oil Company's branch at Urbana, O., said:—Things went smoothly at first and until opposition appeared in the field in the person of William Helmick, a young farmer who had formerly been in the oil business, and whose father had built up a considerable trade in that business. The witness and two other agents of the Standard Oil Company called on Helmick and threatened to cut the price unless he would agree to sell out. After declaring they would reduce the price from 8 to 6 cents, they succeeded in frightening Helmick, who finally agreed to quit the business if the Standard Oil Company would buy his oil. The witness and his fellow agents said the company would do this, but afterwards they refused to take all but a very small quantity of the oil, and Helmick was ultimately ruined financially and went to the poorhouse, from which he was taken by a relative.

RAIDS AND ESPIONAGE.

(6.) Replying to an inquiry by Prof. Jenks, the witness described the method pursued by himself in getting rid of a rival dealer named Donaldson. While the latter was absent, he induced several acquaintances to raid the shed in which his oil tanks were located, having first gone through the form of purchasing a lease of the premises from the owner, although Donaldson's lease had some time to run. Breaking into the shed they dumped the tanks out, loaded everything on drays, and when Donaldson returned he found his property entirely destroyed. The witness testified that he himself devised this method of getting rid of his rival, and that manager Matthews wrote him a letter of congratulation upon his work. He was promised two weeks' leave of absence with pay as a reward, but was unable to take the vacation, because the company was short-handed in his district. Subsequently, in order to secure and hold Donaldson's trade, they hired one of his old drivers to sell oil to Donaldson's customers, at the same time employing a man on a bicycle to follow the driver and take the names of all the firms he called upon.

CORROBORATIVE EVIDENCE.

Commissioner Livingston asked the witness if he did not believe that the Standard Oil people would flatly deny all these statements, to which he replied that they could not do so if they told the truth, and he thereupon added to the list of names of witnesses who, he said, would corroborate his statements.

Such are the honourable trade tactics of those who "are largely interested" (to quote the *Times* again) in pooling our seed-crushing industry, and with whom our British manufacturers propose to work hand and glove.

We have long sighed with satisfaction and blessed ourselves that we are not as other countries are, when we have heard the groans of American manufacturers in all kinds of industries as they were crushed out of existence by these merciless monopolists, how much longer shall we do so? Fair promises are always plentiful at the outset with these people who "are largely interested" but will they be fulfilled any better than those made to the young farmer Helmick just referred to? The law is strong but the past history of the S. O. Co., shows that by some subtle influence ledgers and even legal records have a way of getting lost by fire or accident in a manner which is far from reassuring.

We strongly advise those who are in any way likely to be influenced by, or connected with this "deal" to acquaint themselves with some of this early history which is set out with chapter and verse by Mr. H. D. Lloyd in his "Wealth *v.* Commonwealth" * so that they may judge for themselves if the handle of their spoon is sufficiently long.

THE RESIN MARKET.—There has been a further decline in the value of "pales" during the past month, with a good business. Prices, they remark, appear to have reached the lowest, and therefore a strong advance is considered not unlikely. Common resin is scarce and firm, the receipts to date being only about half last year's figures.

* Published by Harper and Bros, 45, Albemarle-st., W.

PETROLEUM FLASH-POINT NOTES.

"THE PETROLEUM BILL TRICKERY."

OUR worthy contemporary the *Ironmonger*, in its editorial comments, says :—"It is no exaggeration to say that the Government have played a discreditable trick on the House of Commons in the matter of the Petroleum Bill. It will be remembered that on March 15th a Bill introduced by Mr. Harold J. Reckitt, the member for Brigg, with the main object of raising the legal flash-point from 73° to 100° Fahr. (Abel close test), came before the House. The Bill was drafted in accordance with the finding of the majority of the Petroleum Committee, and it was pretty certain that it would be carried by a handsome majority if the House were left to itself. Its rejection, however, was moved by the Government on the express ground that they were preparing a Bill of their own, which would deal with the matter in a more comprehensive way than Mr. Reckitt's measure.

"Influenced, no doubt, by what it regarded as a promise, the House rejected Mr. Reckitt's Bill by 244 against 159 votes. More than three months have since passed, but the Government Bill has not been produced. Various semi-official statements have, however, from time to time appeared in the Press describing its scope, and on several occasions Mr. Jesse Collings, when questioned on the subject, has promised to introduce the measure 'very shortly,' 'before the end of April,' 'before Whitsun,' and so forth. We have now reached Midsummer, Government have seized the remaining Parliamentary time, but the Petroleum Bill is not among the measures with which they intend to proceed. When tackled on this want of faith Mr. Balfour shuffled about the exact wording of the promise, and the egregious Mr. Jesse Collings sat mute. That is not an heroic attitude, but it is, at any rate, less humiliating than to be put up like a man of straw to make promises which are not intended to be kept."

PETROLEUM ACCIDENTS IN LONDON.

The Public Control Committee of the London County Council have reported that during the year ending March 31, 1898, they investigated the circumstances of 304 petroleum lamp accidents which occurred in London during this period. Twenty-eight of these accidents had fatal results; while the remaining 276 caused fires to which the Fire Brigade were called, and thus became public. The Committee found that

39 WERE VERITABLE LAMP EXPLOSIONS,

the rest being cases of the ignition of the oil, which in the great majority of instances escaped through breakage of the reservoir. The Committee observe that as neither explosion nor sudden ignition usually takes place until the temperature of the oil has reached or passed its flashing point, they attach the greatest importance to the raising of the statutory test to a point higher than the temperature attained by the oil in the reservoir of lamps while burning. Inasmuch as

IT IS CLEAR, FROM NUMEROUS EXPERIMENTS,

that the temperature of 100° Fahr. is rarely reached by petroleum oil while being burnt in lamps, the Committee believe that if no oil with a lower flash-point were used for illuminating purposes

THE GREAT BULK OF THE ACCIDENTS WOULD CEASE.

They are also of opinion that if only lamps of safe construction were used, the number of accidents would be largely diminished; but they realise that it would be impossible for any legislation to touch the immense number of lamps now in nightly use, or to prevent neglect and carelessness in the use of lamps originally safe. On the other hand, raising the flash-point is commended as

A VERY EFFECTIVE AND EASY WAY OF OBTAINING SECURITY.

[Will Messrs. Balfour, Collings and Company please digest these official statements. The L.C.C. have no axe to grind and no millions of dollars to lose.—ED. *C.T.J.* See also p. 4.]

THAT SAFE (?) 73° OIL AGAIN.

A serious fire occurred late on Sunday night at Guttridge's brickworks, Brighton. Three workmen were drawing some petroleum from a cask in a shed, when the oil ignited from a candle held by one of the men, setting the whole of the building alight. Two of the men, named Alfred Johnson and Charles John Reed, were terribly burned, and were removed to the county hospital, where Johnson succumbed to his injuries. The third man marvellously escaped injury. The building was destroyed.

[Will Messrs. Balfour, Collings and Co. please note again that there was no "faulty lamp" to be responsible for the occurrence? It was the low-flashing *oil* that ignited; or, to be more correct, the vapour first and then the oil. The potential danger would be just as great in a patent Government-controlled, metal-reservoired, wick-gauzed, vapour-ventilated, water-sealed, standard-screw-collar "safety lamp." Yet if the *oil* were safe you could burn it in a saucer. Still, of course, the Government MUST be right in legislating on lamps and leaving the flash-point of the oil at 73° Fahr.—ED. *C.T.J.*]

Reports of Companies.

YOUNG'S PARAFFIN LIGHT COMPANY.

The annual meeting of Young's Paraffin Light and Mineral Oil Co. was held recently in the Merchants' House, Glasgow, Sir James King presiding.

The Chairman, in moving the adoption of the report said:—The results of last year's business stated in the accounts, are by no means satisfactory, but the causes to which the adverse balance is due, and the reasons for expecting more profitable working in the future, will be apparent, I hope, in the course of my remarks. In the chairman's speech of last year it was stated that the prices of shale products were the lowest on record, but that indications of an upward tendency were showing themselves, although it was premature to speak of definite advances. To a certain extent the improvements then indicated took place during the year, the liquid products having risen slightly in value, and the solid products to a greater extent. But the advances did not occur until the season's contracts had been entered upon. Contracts for burning oil, for instance, were made at a ¼d. per gallon of advance; whereas, had the enhanced prices come a little earlier, a larger increase would have been obtained. And, before the price of solid paraffin improved, the season's candle contracts had been made, so that practically

NO ADVANCE WAS OBTAINED

thereon, notwithstanding an increase of ¼d. to ½d. per lb. on raw material. This system of forward contracting prevails in the burning oil and candle trades, and it has its drawbacks. Still, we could not afford to stand aloof and refuse contracts which all its competitors at home and abroad were willing to make. The result of what I have stated is that up till the end of our financial year the only advance of any moment which we benefited from was on sulphate of ammonia, and on that product we realised a net increase of 28s. per ton. Unfortunately, however, all advances were more than counterbalanced by increased costs. You are no doubt aware that the wages of coal miners were much advanced, and this effected our position seriously in two ways:—(1) The wages of the shale miners had in consequence to be increased: and (2) fuel, of which we consume 200,000 tons per annum, was rendered dearer. It is not necessary that I should recapitulate our other labour troubles; it is enough to say that the enhanced costs, from circumstances beyond our control, amounted on the year to £24,639., and that our operations were seriously interfered with by the removal of old retorts and the erection of new retorts on their site. Thus far have I dealt with the causes of the unsatisfactory results of the past year; but what is of more consequence to the company, and will be, I have no doubt, of greater interest to the shareholders, is to put before you the position in regard to the future. Influencing our prospects there are two factors of great importance. The first is the virtual fulfilment of old contracts for our manufactures at low rates. This enables the company to realise the benefit resulting from the advances which have taken place; and indeed large forward sales of our principal products have already been made at considerably enhanced prices for delivery during the currency of the year. The next, and even more important—indeed, I may say the all-important—factor in the future is the question of retorts. Last year it was explained that 80 retorts of an enlarged and improved type were being erected at Hopetoun. The results obtained from them showed such a marked improvement upon those from the old Pentland retorts that the directors at once authorised another bench of 80 to be erected at Uphall. This bench also gave such satisfaction that the directors ordered other two benches of 80 each to be simultaneously proceeded with—one at Hopetoun and one at Uphall—and these are promised to be completed by September. The advantage derived from increased market value of products is variable—fluctuating in accordance with supply and demand—but by the adoption of the new and greatly enlarged retorts a very important permanent gain is secured. It results mainly from

INCREASED YIELD OF SULPHATE OF AMMONIA,

from saving in labour, and from being able to distil the shale in the retort by means of its own gases and without the use of coal. These gains and economies may be regarded as permanent. No American or Russian competitor can interfere with them, because they obtain no ammoniacal products from their oil springs. Last year it was stated that careful estimates had been made of the comparative results from the Pentland and from the experimental new retorts, but it was considered premature to lay the figures before you. Now, however, the experience of actual working shows that the advantage derived from the new retorts compared with the existing retorts is equal to from 1s. 8d. to 2s. per ton of shale, and this, when the three works are fully equipped with them, would represent a difference in money of about £50,000. per annum. It should be borne in mind, however, that the benefits referred to are only to be realised gradually. Improvements so extensive in their character cannot be carried out in a brief period.

But no time has been lost so far in prosecuting this new and necessary work, and when the two benches now under erection are finished the directors will take into consideration the further equipment of the company's works with these improved patent retorts. In conclusion, I may assure the meeting that during the past year the directors have given unremitting attention to the management of the undertaking, and as the various obstacles to its success have produced such adverse results they resolved to accept no fees in respect of the past year's labours. The directors have a large pecuniary stake in the success of the company, and the absence of dividend is by no means a matter of indifference to them. They have stood by the company in good report and in bad report, and if you continue to extend to them your confidence and support they expect to be able to submit to you a much more favourable statement in June of 1900. After some discussion the report was adopted.

CLAYTON ANILINE CO., LTD.

The annual meeting of the shareholders of the above company was held recently in the Accountants' Hall, King Street, Manchester, the chairman of directors (Mr. Max Baerlein) presiding. The directors reported that the works and plant had been increased during the year by £11,604, which were being constructed April 30th, 1898, and had since been completed and put in work; £13,135, new buildings and plant also completed and put in work during the year; and £3,055., now in course of construction, making a total of £27,795. The directors had considered it prudent to take off a heavy depreciation on works and plant—namely, £8,351. for the year; in addition to this there had been spent during the year on repairs and renewals the sum of £3,964., which amount had been charged to revenue account. The amount of profit for the year amounted to £10,251. to which had to be added the amount brought forward from 1898, £894., leaving £11,146. available for distribution. They recommended a distribution as follows:—Interim dividend on preference shares, paid November 1st, 1898, £1,800.; payment of final dividend on preference shares at six per cent. per annum (subject to income tax), payable forthwith, £1,800.; payment of dividend on ordinary shares at five per cent. (free of income tax), payable forthwith, £4,000.; writing off reconstruction account, £1,482.; sinking fund for contingent liability on preference shares, £150.; leaving balance to be carried forward, less directors' fees, £1,913.

In proposing the adoption of the report, the chairman said the year just ended had given much anxiety to the board owing to the almost uninterrupted fall in prices, both of the raw materials and of their principal products. The present prices were the lowest on record. The extraordinary thing was that there was no apparent reason for this drop. Trade was distinctly good in the textile industries which absorbed their products, and, as far as the directors knew, there were no stoppages in them. Consumption of their products was larger than ever. The profits had only been moderate, but under the circumstances the year's working had been fairly satisfactory, and they had hopes of better times. The necessity of having additional capital was certainly not more remote than it was twelve months ago, when he mentioned the matter, but they intended to continue with their present capital as long as they could.

Mr. W. J. Dorning seconded the motion, and it was carried.

The sum of £1,000. was voted to the directors as remuneration for their services during the past year, and the retiring director, Mr. Max Baerlein, was re-elected.

THE ALUMINIUM CO., LTD.

On Monday, Mr. Justice Cozens-Hardy heard a petition by this company for the sanction of the court to a recent reduction of capital. Mr. Jenkins, Q.C., in its support, said the company was incorporated in 1880, and its object was to acquire the undertaking of Webster's Aluminium Crown and Metal Co. and certain well-known patents mainly relating to the manufacture of sodium and potassium. The original capital was £400,000. divided into 60,000 "A" shares and 20,000 "B" shares of £5. each. All these shares had been issued, and were fully paid-up. The net profits of the company were to be applied to payment of 15 per cent. on the "A" shares and 5 per cent. on the "B" shares, and the balance of profits was to be provided between the two classes of shares *pro rata*. In 1893 there was a reduction of the capital of the company on the footing that capital had been lost, or was unrepresented by available assets, and £4. a share was written off all the shares of the company, reducing the capital to £80,000. fully paid-up. Since 1894 the company had been fairly prosperous, and had paid considerable dividends on the "A" shares, but nothing on the "B" shares. In 1899 a scheme was proposed for rearrangement of the capital of the company, part of the scheme involving reduction of capital. It was that part of the scheme which made it necessary to come to the court. The scheme was to write off and cancel 15,000 of the "B" shares, leaving 5,000, which were to stand on the same footing as the "A" shares, so that there would be 65,000 shares, all having the same rights. This was a matter between the shareholders, and creditors were not affected. The necessary resolutions had been passed, and they asked for the sanction of the court.—Mr. Justice Cozens-Hardy sanctioned the petition, and dispensed with the words "and reduced" as the main part of the business of the company was abroad, and the use of those words was likely to lead to misconception.

THE WORLD'S PETROLEUM PRODUCTION.

A WASHINGTON despatch states that over 5,000,000,000 gallons of petroleum are now produced annually in the world. Of this amount 2,500,000,000 gallons are produced in the United States, 2,250,000,000 gallons in Russia, and the remainder is distributed among a dozen countries, Austria producing 87,000,000 Sumatra 72,000,000, Java 30,000,000, Canada 29,000,000, Roumania 24,000,000, India 15,000,000, Japan 8,000,000, Germany 7,000,000, Peru 3,000,000, and Italy about 1,000,000 gallons. While the United States and Russia furnish the bulk of the world's petroleum and stand almost abreast in quantity of crude oil produced, the amount of refined and illuminating oil supplied by the United States far exceeds that furnished by Russia. Sumatra, next to Russia, is the most formidable competitor of the United States, because of the rapid growth in its production of oil, the fact that its crude oils produce half their quantity in refined illuminating oil, and the further fact that they are much nearer to the Orient, the countries of which form an important part of the world's markets for this class of exportations. Up to the present time, however, the quantity of oil produced in Sumatra is small compared with that of the United States or Russia, its figures for 1897 being but 72,258,000 gallons, against 2,543,000,000 gallons for the United States. The United Kingdom is the largest consumer of mineral oils exported by the United States, the total export to that country in the last fiscal year being 212,265,563 gallons, against 155,203,222 to Germany, 53,398,115 to Japan, 44,523,552 to China, 20,561,084 to Brazil, 20,495,398 to British Australasia, 12,835,631 to France, and 260,431,316 gallons to other European countries. The total exportation of refined illuminating oil from the United States in the fiscal year 1898 was 900,998,875 gallons, while Russia's exportation of refined mineral oils amounted to less than one-third this quantity.

THE LAGUNAS NITRATE CASE.

THE APPEAL DISMISSED.

THE Master of the Rolls and Lord Justices Rigby and Collins, on Monday, in the Court of Appeal, delivered judgment in the case of the Lagunas Nitrate Company, Limited, *v.* the Lagunas Nitrate Syndicate, Limited, and others on the appeal of the plaintiff company from a decision of Mr. Justice Romer in the Chancery Division. The action was brought by the plaintiff company claiming the rescission of an agreement dated June 18, 1894, for the purchase by the plaintiff company from the defendant syndicate of certain nitrate grounds and works at Lagunas, in the province of Tarapaca, Chili, and the return of £550,000. cash and £300,000. worth of fully paid-up shares paid and issued by the plaintiff company to the syndicate as the price of the grounds and works, and also an account of all profits made by the syndicate and its directors and payment thereof to the company, and also claiming as against the directors of the syndicate damages for misrepresentation, misfeasance, breach of trust and breach of warranty, and damages for breach of contract under the agreement. Fraud, however, was not alleged against any of the directors.

The defendants pleaded that the transaction was an honest one and beneficial to the company, that there was no concealment, and also that the price was believed by them to be and was in fact a fair and reasonable one. The defendant syndicate was formed in 1889 to acquire from Colonel North the Lagunas nitrate grounds at a price of £110,000., payable £700. in cash and 109,300 in shares.

The Master of the Rolls said that, having regard to the absence of fraud and the impossibility of restoring the parties to their former position, he agreed with Mr. Justice Romer that the right to rescind could not now be enforced, and he also agreed with him that the company was entitled to damages in respect of the insufficiency of the water supply and the incomplete state of the works. He had no doubt the directors believed that large profits would be made by the company, and as there had been no culpable negligence on their part they were not personally liable for the loss the company had sustained.

Lord Justice Rigby arrived at different conclusions, holding that the syndicate and its directors had concealed material facts, and that the plaintiff company were entitled to have rescission, but Lord Justice Collins agreed with the judgment of the Master of the Rolls, and by a majority of the Court the appeal was dismissed.

Parliamentary Jottings.

THE SALE OF CARBOLIC ACID.

In the House of Commons last week, in reply to Sir John Leng, Sir M. White Ridley said he was aware that a considerable number of deaths yearly were due to carbolic acid poisoning, and it had been frequently suggested that the sale of carbolic acid should be placed under restrictions such as applied to poisons named in the schedule to the Pharmacy Act of 1868. Some years ago the Pharmaceutical Society applied for the insertion of carbolic acid in the schedule, but it was considered that the gain to the public would not be commensurate with the inconvenience arising from the restrictions, and the application had not been recently renewed. He believed that the Irish Government had scheduled carbolic acid, but that was done under an Irish Act, and without consulting the Privy Council in this country. He understood that the objection to scheduling this poison in England had now been lessened by the fact that regulations for the keeping, dispensing, and selling of poisons within the meaning of the Act of 1868 had now been prescribed, and that the Privy Council were prepared to consider whether carbolic acid could advantageously be dealt with in some way; but they could not take any action except upon a resolution of the Pharmaceutical Society.

SURPLUS REVENUE OF THE PATENT OFFICE.

On Monday, in reply to Sir J. Leng (Dundee), Mr Long, (Liverpool, West Derby), who replied for the President of the Board of Trade, said:—The total net surplus revenue of the Patent Office during the ten years ended in December, 1898, appears from the annual reports of the Comptroller-General to have amounted to £1,002,232. The reduction of fees on the renewal of patents commenced in October, 1892. It is impossible to say how much of the surplus revenue accrued between that date and December, 1892. The amount, however, which accrued during the six years following the latter date appears from the annual reports of the Comptroller General to have been £596,057. During the next two years the net surplus reveuue will probably be considerably diminished owing to the fact that the reconstruction of the Patent Office buildings is now proceeding rapidly, and will absorb a larger amount of the revenue than it has done in previous years. The question whether any further portion of the surplus revenue of the office should be applied for the benefit of inventors, and if so, in what way would it be most advantageously employed is a very difficult one. Many suggestions have been made on the subject, some of which are now under consideration.

THE FOOD AND DRUGS BILL.

In reply to Mr. J. G. Webster,

Mr. Balfour said he could not give specific notice as to when the report of the Sale of Food and Drugs Bill would be taken. He had endeavoured, with regard to Bills with which the Government desired to deal, to give as long notice as they could, but at this period of the session there must be some uncertainty, as they did not know how long the House would be occupied on the Bills that preceded any particular measure. Therefore he hoped the House would be tolerant if the Government could not give as long notice as they should desire.

ENGLISH MINING LIFE: A GERMAN VIEW.—Some interesting comparisons between the conditions of mining life in this country and Germany are given by Herr Dückershoff in a little book he has just published. Since the author left his own country and obtained work in the Northumberland coalfield his earnings have been nearly double what they were in Germany, and both he and many of his fellow-countrymen who have followed his example are so satisfied with their adopted country that they have no wish whatever to return to their native surroundings. Not only is the English collier paid better than the German, but his diet is more varied and substantial, his expenses are fewer, his housing accommodation is better, he receives a social consideration unknown to the German collier, and even the workmen in this country wear trousers "wide enough to make two pairs for a German officer." Our author is loud in his praises of the fairness of the system by which the miner's work is arranged by lot, so that everybody has an equal chance of a "soft thing." Underground, everybody is friendly, easy work is reserved for the old men—whereas in Germany "it is all over with the miner who has passed his fiftieth year,"—and nobody says anything if you take a "day off." Herr Dückershoff's experience of the German employer is that he is harsh and overbearing, whereas the English capitalist takes great interest in his workpeople. The only grounds for unfavourable comment are the climate, the cooking, the dulness of the Sabbath, and lack of the "grand German system of insurance against sickness, accidents, infirmity and old age." The culinary deficiencies he attributes largely to the workman's wife, who he regards as being not only a bad cook and lacking in frugality, but too much disposed to get drunk and otherwise disturb the harmony of the household. Intending emigrants, therefore, are advised by him to bring their wives with them.

Trade Notes.

PHOSPHORUS IN MATCHES.—The Women's Trade Union League have issued a memorandum on the use of yellow phosphorus in the manufacture of matches, suggesting the following measures in order to reduce to a *minimum* the risks to the workers of contracting the disease known as "phossy jaw":—(1) The prohibition of the employment of workers under 18 in processes in which yellow phosphorus is used; (2) medical inspection; (3) specially applied ventilation; (4) carefully defined appliances for washing; (5) the provision of dining and cloak rooms; (6) limitation of percentage of yellow phosphorus to be used in the paste; (7) alternative employment; (8) appointment of a woman factory inspector; (9) extension of the Workmen's Compensation Act to injuries from "phossy jaw."

ANOTHER AMERICAN FERTILIZER AMALGAMATION.—The Standard Phosphate and Fertilizer Company has been incorported at Trenton, with a capital stock of £200,000., of which £80,000. is 7% preferred cumulative stock and £120,000. common stock. It is said that this company is to be a nucleus for combining several Southern phosphate and fertilizer companies. Capitalists from New York, Boston, and New Haven are said to be interested. The company already has secured control of the United States Phosphate Company, of Acme, Fla., which has 650 acres of land and a large plant. The Knickerbocker Phosphate Company, of Bartow, Fla., will, it is expected, be taken in later. The company proposes to mine phosphate and to manufacture fertilizers in the South. The company has no connection, it is stated, with the Virginia Chemical Company, or the American Agricultural Chemical Company.

THE "VINOLIA" ISSUE.—"Vinolia" (Limited) have made an issue of 25,000 cumulative 5 per cent. preference shares of £5. each. The authorised capital of the company amounts to £250,000, divided into 25,000 5 per cent. cumulative preference shares of £5. each, and 25,000 ordinary shares of £5. each. The whole of the ordinary shares will be taken by the vendors, credited as fully paid up, in part payment of the purchase consideration. The company has been formed to acquire, carry on, and further develop the business of the Vinolia Company (Limited), the manufacturers of Vinolia Soap. The purchase also includes the business of John Wilton & Sons, soap and candle manufacturers and tallow refiners, Carpenters Road, Stratford, London, E., which was acquired in 1898, which has since been greatly extended, and an entirely new soap-making plant laid down. A modern glycerine distillery has also, it is mentioned, been lately erected, and is now in operation. The list of applications for preference shares were offered at par.

COLLAPSE OF SEPTIC SEWAGE TANKS.—A serious collapse has marked the opening of the two septic tanks erected at the Urmston and Flixton sewage farm, which is situate on the Flixton side of the Ship Canal, near Irlam Ferry. The tanks are each 120 feet long, 16 feet wide, and 9 feet deep to the inlet of the sewer, being covered with an elliptical arch of brickwork, two bricks deep, and banked over with about two feet of soil. The erection was only completed recently, and last week, in the presence of a number of the members of the Urmston and Flixton Joint Drainage Committee, the water was turned on for the first time. To all appearances everything was in satisfactory order, and there was no sign of a collapse, but during the night the outer walls "gave," and the roofs of both the tanks fell in, submerging every particle of the covering One of the walls at the end is also cracked, but the surroundings are too dangerous to allow of a close inspection of the other walls. The damage is estimated at about £250. It is fortunate that the collapse did not take place at the time of the inspection, for had it done so, many of the visitors would have dropped into the tanks with the roof.

THE SANITARY INSTITUTE.—The preliminary programme of the Eighteenth Congress, to be held in Southampton, from August 29th to September 2nd, has now been issued. The President of the Congress is Sir W. H. Preece, K.C.B., F.R.S., Pres. Inst., C.E. Mr. Malcolm Morris will deliver the lecture to the Congress, and Bailie J. Dick, J.P., chairman of the Health Committee, Glasgow, will deliver the popular lecture. Excursions to places of interest in connection with sanitation will be arranged for those attending the Congress. A conversazione will be given by the Mayor (Coun. G. A. E. Hussey). In connection with the Congress a Health Exhibition of apparatus and appliances relating to health and domestic use will be held as a practical illustration of the application and carrying out of the principles and methods discussed at the meetings; it not only serves this purpose but also an important one in diffusing sanitary knowledge among a large class who do not attend the other meetings. The Congress will include three general addresses and lectures. Three sections meeting for two days each, dealing with (1) Sanitary Science and Preventive Medicine, presided over by Sir Joseph Ewart, M.D.; (2) Engineering and Architecture, presided over by James Lemon; (3) Physics, Chemistry, and Biology, presided over by Prof. Percy F. Frankland, F.R.S.; and eight other special conferences.

New Phosphate Deposits.—The small American island of Mona, between San Domingo and Puerto Rico, has recently come into notice through the phosphates found in its caves. The island rises steeply from the sea, the main mass being a block of rock 1,000 to 1,300 feet high, with almost a level surface. The rock being of porous sandstone, is honeycombed with caves, the floors of which are covered with a thick layer of phosphates, almost in a pure state.

Obituary.—With regret, we have to chronicle the decease of Mr. John Riley, J.P., of the Hapton Chemical Works, near Accrington. He died after a short illness on Sunday night, the 25th June, in his 81st year, deeply regretted by all who knew him. Mr. Riley commenced business in Hapton in 1842, and only retired in 1891, when he left the business to be carried on by his son, Mr. J. E. Riley. A full account of his commercial career will be given amongst our obituary notices for 1899.

Russian Glass Trade.—The shares of the Moscow Glass Manufacturing Company have risen fully 10 per cent. It is reported that the leading glass-producing firms (for the development of which industry, it may be said, there is still much scope in Russia) have come to an understanding, according to which the output is to be regulated in accordance with certain rules based upon a thorough knowledge of the market, and by means of which the price of the product is likely to be kept up to a more remunerative level than has been the case hitherto.

Refrigerating Plant for Ceylon.—The new Colombo Ice Company, of Ceylon, who have hitherto been using a five-ton Linde ice-making plant, have decided to extend, and have ordered a ten-ton ice-making plant from the Linde British Refrigeration Company, Limited. This plant is on the Linde Company's patent system for tropical climates, and will practically make ten tons of ice with the same economy as it would be made in temperate climates. Ice-making machines on this system are at work at Massowah, Perim, Madras, the West Indies, Singapore, Shanghai, and other places. At Massowah the temperature of the cooling water frequently rises to 102 degrees Fahr., but with the special system adopted this heated cooling water does not affect the output of ice.

Cattle Poisoning and Disinfectants.—The visit of the Royal Agricultural Society to Four Oaks Park last year completely changed the aspect of the greensward. When the temporary buildings were taken down in the autumn it was found that the grass covered by the shedding had been destroyed. The damage was repaired, fresh seed was sown, and an abundant crop of new grass made its appearance this spring. A fortnight ago Mr. E. T. Walters, of Sutton Coldfield, turned out several head of cattle to graze, and at the beginning of last week nine or ten young heifers were taken ill, and, in spite of every attention, soon expired. The symptoms of their illness were those produced by narcotic poison, and the theory of Mr. Walters and the veterinary surgeon who was called in was that the Royal Society last year used certain disinfectants, which became absorbed by the soil, and that the new grass was impregnated with them.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols for once in a way show a slight improvement. The demand has been better and prices have advanced to 6¾d. to 7d. for 90's and and 7¼d. to 7½d. for 50/90's. There is no quotable change in naphthas, but carbolic acids keep firm, and crude is decidedly firm. Creosote looks like maintaining its position during the summer months. Pitch is steady at 28s. to 29s. 6d. f.o b. East Coast, and 25s. West.

Sulphate of ammonia is on the downward grade to all appearances, for prices have weakened considerably during the past week, though it is not easy to estimate how far the depression is nominal. Nearest prompt prices are:—Beckton, £12 7s. 6d.; London outside makes, £12. 7s. 6d.; Hull, £12. 5s. od: and Leith, £12. 6s. 3d. For July/Dec. on Beckton terms, £12. 2s. 6d. is now being asked.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron strong: Scotch Warrants closed at 69s. 6d., Middlesbrough, 67s. 11d, cash, and hematite, 74s. 8d. Copper steady: Chili bars, G.O.B.'s and G.M.B.'s, closed at £76. 5s. to £76. 10s. cash; and £76. 2s. 6d. to £76. 7s. 6d. three months. Tin firm: Straits closed at £118. 16s. 3d. to £119. 6s. 3d. cash, and £119. 12s. 6d. to £120. 2s. 6d. three months. Australian, £119. 10s.; English ingots, £122. Lead steady: Spanish, £14. 7s. 6d. to £14. 8s. 9d.; English, £14. 10s. Silesian spelter, ordinary, £25. 12s. 6d. Nickel, 1s 2½d. Antimony, £39. 5s. Quicksilver: first hands, £8. 5s.; second hands, £8. 4s. 6d. *Copper Shares* steady: Cape, 4 5/16 to 4 7/16; Copiapo, 3 15/16 to 3 17/16; Libiola, 1¾ to 2; Mason & Barry, 3¾ to 4; Rio Tinto, 44 1/16 to 44 3/16; Tharsis, 7¼ to 8¼.

GLASGOW, Wednesday.—Market buoyant, and a moderate business. Scotch done at 68s. 11d. to 69s. 6d cash; also at 69s. 3d., 69s 1½d, and 69s. 9d. month; buyers, 69s. 6d. cash; sellers, 69s. 7d. Cleveland done at 67s. cash, and 67s. 3d. to 68s. month; buyers, 67s. 1½d. cash; sellers, 68s. 2d. Cumberland hematite done at 73s 11d. to 74s 7d. cash, and 74s. 3d. to 75s. month; buyers, 74s 8d. cash. Middlesbrough hematite, buyers, 72s. cash.

MISCELLANEOUS CHEMICAL MARKET.

Business generally during the past week has been of a satisfactory character. Bleaching powder continues in good demand, but prices do not improve. Caustic soda sells freely at former rates, both for home and export. Saltcake steady at 26s. f.o.r. makers' works. Chlorate of potash unchanged at 3½d. per lb. Soda, 3¾d. Soda crystals quiet at 47s. 6d. Soda ash of all grades moves well, and prices are strong, but without change. Ammonia salts are in moderate request. Grey muriate is quoted £21, and white, £22. Salammoniac, firsts 35s., and seconds, 33s. Acetates generally are without change. Soda is in brisk demand, and price is firm at £13. 10s. Foreign acetate of lead inactive at £22. c.i f. English ports. Litharge, £17. per ton. White powdered arsenic has a strong position and sells freely at £19. 10s. net f.o.r. Garston. Bichromates are without alteration, and there is nothing new to report. Caustic potash has a rather firmer tone, but there is no quotable change. Carbonate is in about the same position. Crude carbolic acid firm and prices advancing; 60's are quoted 2s. 1d. to 2s. 2d. per gallon. Crystal, 40's, 7¼d. per lb. Nitrate of soda quiet, and there is no business of importance passing. The demand for textile chemicals is satisfactory.

REPORT ON MANURE MATERIAL.

The market continues without any special feature, but all phosphatic material is very strongly held, whilst prices for miscellaneous nitrogenous material tend to harden. Quotations for mineral phosphates are still unchanged, and there is no recent important business to report. Still higher prices are being named for River Plate bones, but in the absence of cargoes offering, no business has transpired. East Indian bone meal is firmly held at £5. 3s. 9d. to £5. 7s. 6d. per ton, ex store, on spot; for autumn shipment, £5. 3s. 9d. to £5. 7s. 6d. per ton, according to quality, is required. Nitrate of soda is rather easier on spot, the quotation being 7s. 9d. per cwt.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is steady, but only comparatively small sales have been carried through, in which Lagos at £22. 5s. spot is included. Olive is firm, and the demand has improved, and Candia is quoted £31. 10s. and Malaga £32. per tun. Linseed is steady at 22s. 3d. to 22s. 6d. cwt. Cottonseed is firm, with a fairly good demand at 17s. to 17s. 6d. cwt. Castor oil is firmer, and business is passing more freely at 2⅞d. for Calcutta; 2¾d. for first pressure French and Madras. Tallow is dull, but holders are not disposed to accord any decline. Resin is quieter, particularly on spot, but so far prices remain unchanged. Spirits of turpentine steady at 35s. cwt. Petroleum is steady at 5⅝d. to 6d. for Russian refined, and 6¼d. to 7½d. for American.

CAKES.—Transactions in all departments are on a small scale, but values generally are maintained at last week's closing level. On the spot American Western linseed are just the turn better owing to scarcity, but there is very little passing at £5. 17s. 6d. to £6 5s., but Liverpool makes and Bombay are both without any alteration at £7. to £8. for the former, according to brand, and £6. 10s. to £6. 15s. per ton for the latter; whilst values of both River Plate and Russian remain purely nominal for want of supplies here. Good to choice brands of American decorticated cottonseed are steady but slow at £5. 12s. 6d. to £6. 2s. 6d., as in quality, and Liverpool makes are also rather slow of sale at £6. 2s. 6d. to £6. 15s. per ton, according to brand. Home crushers find only a very moderate inquiry from consumers of Liverpool undecorticated makes, but the recent quotation is repeated at £4. 17s. 6d. to £5. 7s. 6d., according to brand, whilst Egyptian are again a shade quieter on the spot, and close with sellers at £4. 7s. 6d. per ton, and very little doing thereat.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 91s., seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J C, 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s 9d.; black, 9s.; blue, 6s. Oxide of iron: Common, £7. medium, £10.; finest, £20.; Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—According to the Blue Book recently published for 1898, the position of Hull is the third in the value of imports, which are £29½ millions, London £155½ millions, and Liverpool £110¾ millions, with Glasgow the sixth with £12¾ millions, and with Manchester the twelfth a little over £9 millions. In exports also Hull's relative position is the same, with Liverpool holding first position, London second, Glasgow fourth, and Manchester the seventh. The imports into Hull include 2,190 tons train oil, 62¼ tons cocoa-nut oil, 5,434 tuns olive oil, 1,857 tons palm oil, 4,381 tons seed oil; turpentine, 52,397 cwts.; oilseed cake, 23,415 tons; resin, 75,556 cwts.; tallow, 107,795 cwts.; petroleum, 13,000,000 gallons. The exports include alkali, 38,500 cwts.; bleaching materials, 26,600 cwts.; grease, 101,367 cwts.; manure, 41,795 tons; seed oils, 17,236 tons; floorcloth, 3,322,200 yards; soap, 3,200 cwts. The value of linseed oil has hardly maintained the position of a week ago, having lost about 5/- per ton spot values. Cotton oil is steady at about the same value. Linseed oil slow, 20s., naked, spot; 19s. 6d. July/August; 18s. September/December; 17s. 9d. January/April. Boiled and refined, £1. to £1 10s. per ton extra. Refined cotton oil steady, 15s. 4½d. to 15s. 6d., naked, spot; 15s. 7½d. July/August; 14s. 4½d. Nov /April. Crude, spot, quoted 14s. 3d.; casks £1. and ordinary barrels £1. 10s. per ton extra. Advices come forward quoting turpentine and resin easier for new crop, the former 30s. July/December, and the latter 4s. 3d. to 4s. 4½d. for amber F grades. Oleines, £18. 10s. to £21. per ton. Castor oil unchanged. Olive oil steady, from £32. to £33. 10s. Olive oil soap unchanged. Cod oil, £16. to £18. per ton.

CAKES.—The seed-crushing industry here will enter upon a new existence from July 1st, the long-talked-of syndicate is fast becoming an accomplished fact, the question of valuation of mills, etc., has been settled, and firms are now busy stocktaking. Linseed cakes firm; 95 per cent. pure, £6. 15s. to £6. 17s. 6d. Oilcake (linseed), £6.; Russian, £6. 12s. 6d. to £6 17s. 6d. Cotton cakes steady, best makes £5. 2s. 6d.; seconds, £4 17s 6d.; decorticated, £6 5s.; meal, £5. 17s. 6d. Rape cakes, £4. 5s.

PAINTS.—Unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The chief feature in the market has been a somewhat irregular and spasmodic behaviour on the part of sulphate of copper. The figure remains nominally the same, but some middle holders have been forcing business at prices representing a considerable reduction on those of the makers. Sulphate of ammonia, during the week, stopped its retrograde movement, and even picked up a fraction of that which had been dropped The idea of the makers to-day for prompt f.o b. Leith is £12 8s. 9d. to £12. 10s., or thereabout. Nitrate of soda is quoted the turning of the scale lower. Heavy chemicals are for the most part in a moderately good movement, particularly for bleaching powder, which is being quoted a shade higher. Mineral oils and paraffins unchanged.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 7s. 6d, 70/72° £7., 60/62° £6., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 12s. 6d. nett, Tyne; saltcake, 26/6; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3¾d, less 5% Liverpool; nitrate of soda, 7s. 9d. to 8s.; sulphate of ammonia, £12. 8s. 9d. to £12. 10s., prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb.; paraffin spirit (naphtha), 9d. to 9½d. per gal; paraffin oil (burning), No. 1, 6¼d.; and crystal, 6¾d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £4. 15s. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were 137 hhds., 101 brls, and 848 bags, beet, unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are still in slow demand, and there appears no immediate signs of improvement. Soda crystals are £2. 12s. 6d. per ton, gross weight, locally. Caustic, 70%, £7., and 76/77%, £8. per ton. Sulphur steady at £4. ;5s. per ton.

Bleaching powder, softs, £5. 5s. per ton, nett; do., hards, £5. 10s. per ton, nett; caustic soda: 76/77% £8., and 70% £7. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. od. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. od. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt is steady at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The coal market is steady, and business is extremely active for the season. Coke is brisk in demand, and firm in price at 25s. to 26s. per ton. To-day's quotations:—Best Northumbrian steam, 12s. 3d. to 12s. 6d. per ton; second qualities, 11s. 3d. to 11s. 6d. per ton; small steam, 5s. 6d. to 6s. per ton; gas coals steady at 10s. to 11s. per ton; household coals, 10s. to 11s. per ton; coke, 25s. to 26s. per ton.

New Companies.

George Blackwell & Co., Ltd.—CAPITAL £5,000. in £5 shares. This company has been formed to carry on the business of glycerine refiners, dynamite, and other explosive manufacturers, etc. The first directors (to number not less than two nor more than five) are G. S. Blackwell and J. K. D. Mackenzie. Qualification, 20 shares.

Vulite Synd., Ltd.—CAPITAL £100. in £1. shares. This company has been formed to manufacture and deal in a fluid called "Vulite," for preventing incrustation in steam boilers. The number of directors is not to be less than 2 nor more than 5; the first are J. Maddocks and T. Lloyd (governing directors for life). Remuneration as fixed by the company.

Kingston-on-Soar Gypsum Company, Ltd.—CAPITAL £18,000. in £10. shares. This company has been formed to acquire certain gypsum works and other property at Kingston-on-Soar and West Leake, Nottingham, and to adopt an agreement with Baron Belper, and to carry on the business of gypsum, cement, plaster, etc. The subscribers are to appoint the first directors. Remuneration as fixed by the company.

Argentine Borax Co., Ltd.—CAPITAL, £150,000. in £1. shares. This company has been formed to acquire and develop borax and other properties in the Argentine Republic or elsewhere, to carry on the business of manufacturers of and dealers in borax and other chemicals, and to enter into an agreement with A. Cohen. The subscribers to the memorandum of association are:—W. J. Blacklaws, 150, Doggett-road, Catford, S.E., accountant; C. R. Jamblin, 21, Westbourne Square, W., clerk; G. Sizer, 106, New-road, Battersea, S.W., clerk; A. J. Lowe, 58, Gibson Square, Islington, N., clerk; J. G. Bowles, M.E., Lewis House, Eastbourne; M. E. Ramel, 16, Silverter-road, E. Dulwich, S.E., clerk; L. J. Levy, 49, Priory-road, N.W., clerk.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending June 17th.

Acetic Acid—
Holland, 70 pks. R. W. Greeff & Co.
" 52 A. & M. Zimmermann

Acetone—
Germany, 10 pks. T. H. Lee
Holland, 2 Phillipps & Graves

Alum—
Holland, 630 pks. J. White

Alumina Sulphite—
Holland, £23 C. W. Dicken

Ammonia—
Holland, £50 H. Lorenz

Antimony Ore—
France, 6 c. Girard Brs. & Co.
Italy, 5 t. Novelli & Co.
Sydney, 10 A. Gibbs & Sons

Arsenic—
Portugal, £520 Coverley & Westray

Barium—
Germany, £70 H. Johnson & Sons

Barium Sulphate—
Belgium, 39 pks. J. L. Lyon & Co.

Barytes—
Germany, 22 pks. W. Harrison & Co.
Belgium, 104 "
" 870 J. L. Lyon & Co.
Germany, 200 Burrell & Co.
" 38 F. Claydon & Co.
Holland, 24 "

Boracic Acid—
Italy, 9 pks. Nichs. Wvs, Ld.

Bromine—
Germany, 17 pks. A. & M. Zimmermann
" 19 Craven & Co.

Caoutchouc—
Germany, 5 t. 6 c. L. & I. D. Jt. Co.
Rangoon, 20 13 "
N. Russia, 18 17 "
France, 1 14 Girard Brs. & Co.
Rangoon, 19 Steel Brs. & Co.
" 15 Prop. Hay's Wf.
Holland, 1 Phillips & Graves
Straits, 2 16 W. Pope & Co.
E. Indies, 15 Butler's Wf., Ld.

Castor Oil—
France, 30 brls. Beresford & Co.

Caustic Potash—
Germany, 20 pks. J. M. Steel & Co.
" 17 South Devon Wf. Co.

Chemicals (*otherwise undescribed*)
Norway, £210 R. Greening
Germany, 9 Butler's Wf., Ld.
" 32 Argo S. S. Co.
" 37 J. Norrenburg & Co.
" 8 L. & I. D. Jt. Co.
" 6 Petri Brs.
" 32 H. Lambert
Holland, 260 H. Harkness
U. States 105 S. Lambert & Co.
" 1,490 H. Harkness
Belgium, 217 T. Palmer
France, 57 Mory & Co.
" 200 Lon. & Til. Ltge, C. & D. Co., Ld.
Holland, 5 Staveley & Co.
" 15 M. Benscher
" 85 Netherlands S. B. Co.
" 40 A. C. Lloyd
Canada, 17 H. Rosenway & Co.

Coal Products—
Naphtha
Roumania, 43 cks. L. & I. D. Jt. Co.
Tar Oil
Holland, 59 pks. J. Owen

Colours—
Holland, 3 cks. Henderson, Craig & Co.

Cream of Tartar—
Spain, 5 pks. B. & F. Wf. Co., Ld.
Italy, 10 W. C. Bacon & Co.
France, 10 B. & F. Wf. Co., Ld.
" 2 H. Johnson & Sons
" 15 F. C. Devon & Co.
" 5 W. C. Bacon & Co.
" 5 M. Ashby, Ld.
Portugal, 5 B. & F. Wf. Co., Ld.

Dyestuffs—
Aniline
Holland, 5 pks. G. S. N. Co.
Cochineal
Canaries, 21 pks. Swanston & Co.
Cutch
Rangoon, 350 pks. A. Howden & Co.
Extracts
U. States, 100 pks. W. & S. Bowditch
" 25 W. C. Barnes & Co.
Holland, 55 F. Claydon & Co.
France, 80 A. J. Humphrey
Gambier
Straits, 1,027 pks. Beresford & Co.
" 15 Hoare, Wilson & Co.
Indigo
E. Indies, 2 chts. L. & I. D. Jt. Co.
Italy, 5 "
Germany, 12 "
Madder
France, 1 pk. Skilbeck Brs.
Myrabolams
E. Indies, 400 pks. Dalton & Young
" 218 L. & I. D. Jt. Co.
" 500 R. G. Hall & Co.
Naphthaline
Belgium, 5 pks. J. M. Steel & Co.
Saffron
Spain, 1 pk. Major & Field
Shumac
Italy, 150 pks. A Slator & Co.
" 370 J. W. Cook & Co., Ld.
Tanners' Bark
Natal, 50 t. A. & W. Nesbitt
Melbourne, 51 Deering & Robottom
Natal, 61 J. T. Rennie, Son & Co.
N. Zealand, 5 N. Z. L. & M. A. Co.
Natal, 75 Flack, Chandler & Co.
" 12 Bullard, King & Co.
Belgium, 11 Leach & Co.
Germany, 38 Argo S. S. Co.

Dyestuffs (*otherwise undes.*)—
Holland, 84 pks. M. Benscher

Farina—
Germany, 100 pks. Mack & Co.
U. States, 312 Taylor Brs.
Belgium, 2 John Cockerill Line
Germany, 50 J. Knill & Co.
" 100 Ohlenschlager Brs.
" 100 R. Bennett & Co.
Belgium, 70 T. H. Lee

Gamboge—
Cochin, 17 pks. L. & I. D. Jt. Co.

Glucose—
Holland, 101 pks. 101 c. J. Barber & Co.
U. States, 500 500 Ohlenschlager Brs.
" 1,539 1,539 L. & I. D. Jt. Co.
" 750 750 E. Thompson & Co.
" 49 245 Union L. Co., Ld.
" 196 1,221 L. & Til. L. C. & D Co.
" 100 600 E. & T. Pink
" 1,744 1,245 C. Barnard
" 1,000 1,000 Pickford & Co.
" 200 900 W. Grose & Co.
" 6,451 19,409 R. G. Hall & Co.
" 160 160 C. S Lovell
Germany, 70 662 Beresford & Co.
France, 200 200 L. Norman & Co., Ld.
Belgium, 100 200 G. Clarke & Son

Glue—
Holland, £10 Hernu, Peron & Co.
France, 25 Burnett Brs. & Sons
" 16 E. Flageollet & Co.
France, 110 J. Harrison
Belgium, 750 G. E. Banes
" 30 Rosenberg, Loewe & Co.
" 1,100 Becker & Wagner
France, 16 C. Atkins & Nisbet
U. States, 25 London Parcels Del. Co.
Germany, 107 L. & I. D. Jt. Co.
U. States, 40 "
Germany, 75 T. H. Lee
" 250 Steinhoff, Sons & Co.
" 600 Netherlands S. B. Co.
France, 1,070 T. M. Duche & Sons
" 91 Mory & Co
" 65 B. & F. Wf Co., Ld.
Austria, 475 Steinhoff, Sons & Co.
U States, 39 Armour & Co.
Germany, 132 M. D. Co.

Glycerine—
France, £35 J. L. Lyon & Co.
Germany, 50 F. Boehm
France, 310 H. Hill & Sons

Gutta Percha—
France, 1 cs. Messageries Parisiennes
Germany, 7 t. Frith, Sands & Co.
" 14 10 c. Union L. Co., Ld.
Straits, 12 16 Prop. Bull Wf.
" 9 19 Huttenbach & Co.
" 5 Anderson, Weber & Smith
W. Indies, 17 "
Straits, 15 17 Kleinwort, Sons & Co.

Gypsum—
Germany, 20 t. Brasch & Rothenstein

Iron Oxide—
Germany, 5 cks. H. Lambert
Persia, 1,067 t. M. D. Co

Litharge—
Germany, 6 pks. Spies, Brs. & Co.
" 8 J. Barber & Co.

Manure—
E. Indies, 100 t. E. Packard & Co.

Methyl Alcohol—
France, 1,250 g. Lister & Biggs
Germany, 390 T. Jones & Co.
" 1,440 Tingle, Jacobs, & Co.

Molasses—
U. States, 400 cks. 2,282 c. J. Forsey
" 500 2,330 L. & I. D. Jt. Co.
U. States, 400 2,480 R. G. Hall & Co.
" 300 1,650 Deering & Robottom
" 249 1,421 Ohlenschlager Brs.
" 50 313 C. Barnard
" 50 285 L. Norman & Co., Ld.
Cape, 100 cs. 600 L. & I. D. Jt Co.

Ochre—
France, 153 pks. W. Harrison & Co.
Holland, 26 Phillipps & Graves

Oxalic Acid—
Holland, 10 pks. R. W. Greeff & Co.

Paraffin Wax—
Rangoon, 1,280 bxs. H. Hill & Sons
U. States, 100 brls. Mordaunt Brs.

Phosphates—
U. States, 1,500 t. A. Hunter & Co.
France, 150 J. Harrison

Potash—
Germany, 2 pks. Argo S. S. Co.

Potassium Bromide—
Germany, 10 pks. R. W. Greeff & Co.

Potassium Carbonate—
Germany, 14 t. 5 c. J. M. Steel & Co.
" 1 4 H. Lambert
France, 1 J. A. Reid

Potassium Oxymuriate—
Sweden, 100 pks. G. Boor & Co.

Pyridine Bases—
Belgium, £140 J. Owen

Red Lead—
Germany, 23 pks. Taylor Brs.
" 4 J. Barber & Co.

Rosin—
France, 250 brls. C. Price & Co.

Salicylic Acid—
Germany, 25 pks. Butler's Wf., Ld.

Saltpetre—
Germany, 130 cks P. Hecker & Co.
" 19 L. & I. D. Jt. Co.
E. Indies, 1,265 bgs. Lucas & Spencer's Wf.

Soda—
Holland, 2 t. R. W. Greeff & Co.
Germany, 1 ck. L. & I. D. Jt. Co.

Soda Crystals—
Belgium, 1 t. Leach & Co.

Sodium Hyposulphite—
Germany, 27 pks. Deering & Robottom
" 6 t. 4 c. H. Lambert

Starch—
U. States, 125 pks. Beck & Pollitzer
" 100 Valentin, Tod, & Co.
" 175 R. Bennett & Co.
" 1,425 R. G. Hall & Co.
France, 130 W. E. Cole
Belgium, 60 T. Ronaldson & Co.
" 440 Becker & Wagner
" 470 E. & T. Pink
" 40 J. Harrison
" 40 J. Barber & Co.
" 710 T. H. Lee
" 212 Leach & Co.
Holland, 400 Little & Johnston
" 40 J. Barber & Co.
" 40 Phillipps & Graves
" 55 G. S. N. Co.
" 100 D. R. Wallis
Canada, 450 R. G. Hall & Co.
Italy, 476 Bodega Brs.
" 130 Nichs W'vs, Ld.

Stearine—
France, 57 bgs. Burnett Brs. & Sons
" 251 H. Hill & Sons
Belgium, 125 "
" 30 J. Harrison
" 50 D C. Thomas & Sons
" 70 J. W. Baker

Sulphur—
Italy, 200 t. Ekman Pulp & Paper Co.
" 5 Nich's W'vs., Ld.

Tallow—
Spain, 35 cks. J. Knill & Co.
N. Zealand, 10 N. M. & A. Co.
" 6 Culverwell, Brooks, & Co.
" 100 J. Owen
" 29 Flack, Chandler, & Co.
" 14 J. Groves
" 95 H. Hill & Sons
" 1 N. Z. L. & M. A. Co.
" 5 Col. Con., & Dist. Co.
" 43 Beresford & Co.
" 30 Union Ltge. Co, Ld.
" 41 Deering & Robottom
N. Zealand, 197 Phillipps & Graves
Queensland, 70 Low, Sons, & Bedford
Canada, 9 R. Tucker & Co.
France, 57 sks. Orient Co., Ld.

Tartaric Acid—
Holland, 50 pks. Kirkpatrick, Barr, & Co
Belgium, 22 F. C. Devon & Co.

Ultramarine—
Holland, 5 pks. J. Barber & Co
" 10 G. S. N. Co.
" 20 W. Harrison & Co.
" 4 Netherlands S. B. Co.
" 20 Thames S. T. & L. Co., Ld.
" 2 Phillipps & Graves
Belgium, 10 W. Harrison & Co.
" 4 Tough & Henderson
" 11 J. Harrison

Varnish—
U. States, 52 pks. Lon. & Til. Ltge. C. & D. Co.
" 31 Taylor Brs.
" 29 Atlantic Transport Co.
Belgium, 3 Wilson & Co.

Waste Salt—
Germany, 10 t. R. W. Greeff & Co.
" 2 J. Norrenberg & Co.

White Lead—
Germany, 3 pks. H. Lambert
" 25 J. Kitchin, Ld.
" 76 Taylor Brs.
" 29 Perkins & Homer
" 28 W. Hampton
Holland, 6 A. Zumbeck & Co.
" 45 Perkins & Homer
" 49 A. & M. Zimmermann
" 20 Kerestedji & Co.
" 62 Randall Brs.
Belgium, 21 J. L. Lyon & Co.
" 22 J. R. Francis & Co.
" 96 T. & W. Farmiloe, Ld.

Wood Pulp—
U. States, 3,181 pks. Henderson, Craig, & Co.
" 225 Linoleum Manufg. Co.
" 293 A. E. Reed & Co.
Sweden, 500 Tough & Henderson
" 240 A. E. Reed & Co.
" 40 Thames S. T. & L. Co., Ld.
" 220 Christophersen, Andrews, & Co.
" 1,520 W. G. Taylor & Co., Ld.
" 2,400 Christophersen & Co.
" 2,000 Henderson, Craig, & Co.
Canada, 5,332 Furness, Withy, & Co.
" 2,485 Henderson, Craig, & Co.
" 4,772 A. E. Reed & Co.
Holland, 250 H. B. Wood
" 250 Robinson, Roberts & Co.
" 111 Henderson, Craig, & Co.
Belgium, 3,243 J. Harrison

Zinc Oxide—
Germany, 50 pks M. Ashby, Ld.
" 12 Petri Brs.
U. States, 150 M. Ashby, Ld.
Holland, 210 "
" 20 Netherlands S. B. Co.

Zinc White—
Germany, 90 pks. Taylor Brs.
" 128 Spies Brs. & Co.
" 10 Tyrer & Co.
Belgium, 5 J. Harrison
" 5 Kerestedji & Co.

LIVERPOOL.

Week ending June 15th.

Alcohol—
Hamburg, 1 dm.

Barytes—
Antwerp, 88 cks.
" 100 bgs.

Bone Ash—
Riga, 636 bgs.

Bones—
B. Ayres, 83 bgs.
Valparaiso, 208 sks.

Boracic Acid—
Leghorn, 123 cks.

Borate of Lime—
Valparaiso, 2,160 sks.

Castor Oil—
Calcutta, 498 cs. Ralli Brs.
" 100

Callao, 50 sks. F. F. Ramaz
Leghorn, 20 cs.

Caustic Potash—
Bremen, 23 dms.

Chemicals *(otherwise undescribed)*
Iquique, 4,026 sks.

Chrome Ore—
Philadelphia, 12 brls.

Coal Products—
Tar
Boston, 500 brls.

Cobalt Ore—
Rouen, 2 cs. J. R. Francis & Co.

Colours—
Stettin, 5 cks. Evans Sons & Co.
" 24 Clayton & Jowett

Cottonseed Oil—
N. Orleans, 3,587 brls.

Cream of Tartar—
Bordeaux, 19 cks.

Dyestuffs—
Argols
Oporto, 31 cks.
Cutch
Singapore, 818 bxs.
Extract
Fiume, 136 brls.
Havre, 61 cks. Cunard S. S. Co.
St. Nazaire, 360
Gambier
Singapore, 549 bls.
Shumac
Palermo, 1,300 bgs.

Dyewood Extract—
Colon, 150 cs. D Midkeley & Co.
New York, 125 brls. McArthur & Co.
" 25
Philadelphia, Co

Farina—
Fiume, 100 bgs.

Glucose—
Baltimore, 1,350 brls.
Boston, 2,700

Glue—
Hamburg, 20 bgs.
Naples, 20
Philadelphia, 2 brls.

Iodine—
Valparaiso, 44 kgs. A. Gibbs & Sons
" 55 brls.

Manganese Ore—
Coquimbo, qty.
Poti, 2,750 t.

Ochre—
Rouen, 38 cks. J. R. Francis & Co.

Paint—
Boston, 10 cs. W. L. Nickels & G. Ross
Rotterdam, 1 ck. 40 dms.

Paraffin Wax—
Baltimore, 200 brls.

Phosphates—
Charlotte Hrbr. 967 t.
Ghent, 5,650 bgs.

Phosphoric Acid—
Bremen, 30 crbys.

Phosphorus—
Montreal, 95 cs.

Potash—
Hamburg, 88 cks.
Montreal, 60 brls.

Pyrites—
Huelva, 3,021 t. Mathieson & Co

Red Lead—
Rotterdam, 17 cks.

Rosin—
New York, 1,000 brls.
Rotterdam, 25

Salicylic Acid—
Hamburg, 10 cs.

Saltpetre—
Calcutta, 388 bgs. Ralli Brs.
Hamburg, 30 kgs.

Soap—
Bari, 263 cs.
Boston, 10 W. Foggitt
Leghorn, 275 bxs. Brown Brs. & Co.
Naples, 130 cs.
N. Orleans, 171 brls.
New York, 1,500 bxs Lever Brs., Ld.

Soap Stock—
Genoa 30 cks. Brown Brs. & Co.
Leghorn, 50 brls. Baring Brs. & Co.
N. Orleans, 647
New York, 350

Soapstone—
Bordeaux, 200 bgs. Geo. G. Blackwell, Sons & Co., Ld.
Genoa, 100 bgs.

Sodium Prussiate—
Antwerp, 16 cks.

Starch—
Antwerp, 953 cs.
Bremen, 100
Rotterdam, 100

Stearine—
Antwerp. 58 bgs.
Montreal, 300 tcs.

Sulphur—
Catania, 390 bgs. / 13 cks. / 50 bls / 134 brls.

Tallow—
Baltimore, 63 tcs. / 100 brls.
Boston, 300 / 1,276 tcs.
New York, 1,228
Philadelphia, 10 Liverpool W'housing Co.
" 250 tcs.

Tannin Extract—
Nantes, 550 cks. J. R. Francis & Co.

Tartaric Acid—
Messina, 8 cks.

Ultramarine—
Rotterdam, 20 cks.

Waste Salt—
Alexandria, 2 bls.
Hamburg, 410 t.

White Lead—
Rotterdam, 33 cks

Wood Pulp—
Miramichi, 528 bls.
Rotterdam, 13 pks.

HULL.

Week ending June 17th.

Alkali—
Antwerp, 15 dms. Wilson, Sons, & Co., Ld.

Ammonium Sulphate—
Ghent, 100 bgs. Wilson, Sons, & Co., Ld.

Barytes—
Amsterdam, 141 cks. Hull & Netherlands S. S. Co.
Bremen, 20 G. Holmes & Co.
Rotterdam, 2 Hull & Netherlands S. S. Co.
100 bgs.

Castor Oil—
Calcutta, 493 cs.

Chemicals *(otherwise undescribed)*
Antwerp, 1 ck. Wilson, Sons, & Co., Ld.
" 1
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 61 pks. / 4 cks. / 2 brls. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 75 pks. Hull & Netherlands S. S. Co.
Aniline Colours
Rotterdam, 17 brls. Hull & Netherlands S. S. Co

Colours—
Antwerp, 45 brls. / 2 cks. / 1 cs. Wilson,
11 pks. Sons, & Co., Ld.
Bremen, 4 J. Pyefinch & Co.
Hamburg, 1 ck. Wilson, Sons, & Co., Ld.
New York, 100 brls.
Rotterdam, 14 pks. Hull & Netherlands S. S. Co.

Cream of Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Dyestuffs—
Extract
Rouen, 27 cks. Wilson, Sons, & Co., Ld.
Myrabolams
Bombay, 11,064 bgs.

Farina—
Antwerp, 25 bgs. Wilson, Sons, & Co., Ld
Harlingen, 250 bls. Hull & Netherlands S. S. Co.
Stettin, 50 bgs. Wilson, Sons, & Co., Ld.

Glucose—
New York, 244 brls.
Stettin, 100 bgs.

Glue—
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 5 Hull & Netherlands S. S. Co.
Rouen, 7 cks. Wilson, Sons, & Co., Ld.

Linseed Oil—
Amsterdam, 90 brls. Hull & Netherlands S. S. Co.

Lithopone—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co.

Logwood Extract—
Hamburg, 10 cs. Wilson, Sons, & Co., Ld.
New York, 50 bxs. "

Manure—
Kurrachee, 220 bgs.
Rotterdam, 100 Wilson, Sons, & Co., Ld.

Ochre—
Rouen, 9 cks.

Paraffin Wax—
New York, 107 brls.

Phosphates—
Ghent, 200 t.

Potash—
Antwerp, 42 pks. Wilson, Sons, & Co., Ld.
Dunkirk, 36 dms. "

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Hamburg 50 "

Soap—
New York, 100 brls
St. Petersburg, 1 cs. Wilson, Sons, & Co., Ld.

Soda—
Hamburg, 3 cs. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 100 cs. Hull & Netherlands S. S. Co.
Antwerp, 20 J. Hall & Son
Bremen, 2,923 Veltmann & Co.
Ghent, 244 Wilson, Sons, & Co., Ld.
Rotterdam, 45 Hull & Netherlands S. S. Co.

Tallow—
Dunkirk, 89 cks. Wilson, Sons, & Co., Ld.
New York, 102 tcs. "

Tartaric Acid—
Rotterdam, 25 cks. Hull & Netherlands S. S. Co.

Turpentine—
Riga, 52 cks.

Ultramarine—
Bremen, 4 cks. W. R. Todd & Son
Rotterdam, 4 Hull & Netherlands S. S. Co.

Varnish—
Ghent, 1 cs.

Waste Salt—
Hamburg, 1,613 bgs.

White Lead
Antwerp, 28 cks. Bailey & Leetham, Ld.
Rotterdam, 124 Hull & Netherlands S. S. Co.

Wood Pulp—
Christiania, 2,194 bls. Wilson,
32 cs. Sons, & Co., Ld.
Drontheim, 1,241 bls. "
Gothenburg, 308
New York, 530 rolls "

Zinc Oxide—
Antwerp, 40 cks. Bailey & Leetham, Ld.

Zinc White—
Antwerp, 50 brls. Bailey & Leetham, Ld.

MANCHESTER.

Week ending June 17th.

Acetate of Lime—
New York 252 bgs.

Acetic Acid—
Stettin. 71 blns.

Ammonia—
Antwerp, 1 brl.

Barytes—
Antwerp, 50 bgs. 20 brls.
Rotterdam, 200

Chemicals *(otherwise unclassified)*
Hamburg, 40 dms.

Coal Products—
Creosote Salts
Rotterdam, 4 cks.

Colours—
Antwerp, 7 cks.
Hamburg, 5 cs.
Rotterdam, 168 / 40 / 2 bxs. / 8 kgs. 16 brls.

Cottonseed Oil—
New York, 25 brls.

Cream of Tartar—
Rotterdam, 12 cks.

Dyestuffs—
Extract
Antwerp, 6
Nantes, 200 cks.
Rotterdam 5
Rouen, 31
Indigo
Rotterdam. 3 chts.

Dyewood Extract—
New York, 50 bdls.

Farina—
Hamburg, 630 bgs.
Stettin, 1,030 Browne, Geveke, & Co.
" 1,160

Gelatine—
Antwerp, 4 bls.

Glucose—
Montreal, 530 brls.
New York, 582

Glue—
Antwerp, 20 bls.
Rotterdam, 110 bgs.
Rouen, 75 cks. 72
Treport, 12

Lead Acetate—
Stettin, 28 cks.

Lithopone—
Rotterdam, 22 chts.

Paraffin Wax—
New York, 1,127 brls.

Potash—
Hamburg, 12 dms.
Treport, 39

Potassium Carbonate—
Hamburg, 25 cks.

Potassium Oxalate—
Rotterdam, 5 cks.

Potassium Permanganate—
Hamburg, 2cks.

Potassium Prussiate—
Rouen, 3 cks.

Prussiate—
Antwerp, 16 b

Rosin—
Bordeaux, 8 cks. J & P Hutchison

Salammoniac—
Antwerp, 30 bls.

Soap Lyes—
Nantes, 12 brls.

Soda—
Hamburg, 7 cks.

Starch—
Antwerp, 200 cs.
Hamburg, 152
Montreal, 400 sks.
New York, 550 bgs.
Rotterdam, 180 50 bls.

Stearine—
Antwerp, 39 bgs.

Strontium Nitrate—
Antwerp, 15 brls.

Sulphuric Acid—
Rotterdam, 5 cks.

Tallow—
New York, 50 hds.

Tanners' Extract—
New York, 35 bxs. 6 brls.

Tartaric Acid—
Rotterdam, 20 cks.

Ultramarine—
Rotterdam, 20 cs.
Waste Salt—
Hamburg, qty.
Wood Pulp—
Christiania, 1,619 bls. W. H. Ingram
Frano, 2,400 W. H. Stott & Co.
Gefle, 4,360 "
" 5,500
Gothenburg, 2,620
St. John's, N'fd., 20,891
Skien, 3,146 W. H. Ingram
Stettin, 1,458 bdls. 81 bls.
Sundsvall, 1,200 W. H. Stott & Co.
Zinc Oxide—
Antwerp, 10 brls.
Hamburg, 5 cks.
New York, 100
Rotterdam, 41
Zinc White—
Rotterdam, 25 cks.

GLASGOW.

Week ending June 22nd.

Antimony—
Hamburg, 11 cks.
Antimony Salt—
Rotterdam, 10 kgs. J. Rankine & Son
Barium Chloride—
Rotterdam, 40 cks. J. Rankine & Son
Barytes—
Amsterdam, 46 cks.
Rotterdam, 11 J. Rankine & Son
Boracic Acid—
Leghorn, 9 cks.
Castor Oil—
Fiume, 20 cs.
Marseilles, 21 155 cks.
Chemicals *(otherwise undescribed)*
Amsterdam, 2 cs
Coal Products—
Alizarine
Rotterdam, 62 cks. 12 cs. 14 brls. J. Rankine & Son
Aniline
Rotterdam, 31 cks. 10 cs. J. Rankine & Son
Colours—
Hamburg, 10 cks. 2 cs.
" 1 14 cks. J. Currie & Co.
Rotterdam, 45 cks. 5 cs. 29 pks. 3 bxs. 4 brls. J. Rankine & Son
Cottonseed Oil—
New York, 280 brls.
Cream of Tartar—
Genoa, 4 brls.
Oporto, 3 cks.
Dyestuffs—
Extract
Fiume, 204 brls.
Shumac
Palermo, 206 bgs.
Dyewood Extract—
New York, 6 kgs. 6 brls.
Farina—
Delfszyhl, 145 bgs. J. Rankine & Son
Glucose—
New York, 872 brls.
Glue—
Boston 15 pks.
Fiume, 100 bgs.
Rotterdam, 11 J. Rankine & Son
Iron Oxide—
Montreal, 36 brls. 59 kgs.
Magnesite—
Hamburg, 2 cks.
Ochre—
Marseilles, 53 cks.
Oxalic Acid—
Rotterdam, 6 cks. J. Rankine & Son
Paint—
New York, 20 kgs.
Potash—
Hamburg 40 cks. 47 cs.
Rotterdam, 55 cks. J. Rankine & Son
Potassium Oxalate—
Rotterdam, 10 kgs. J. Rankine & Son
Red Lead—
Rotterdam, 34 cks. J. Rankine & Son
Rosin—
New York, 750 brls.
Soap—
Fiume, 121 cs.
Genoa, 40
New York, 25 bxs.
Soap Lyes—
Marseilles, 10 dms.
Soapstone—
Genoa, 50 bgs.
Soda—
Genoa, 26 brls.
Sodium Sulphate—
Rotterdam, 1 brl. J. Rankine & Son
Starch—
New York, 260 bxs. 50 bndls. 150 bgs.
Stearine—
Marseilles, 30 cs.
New York, 60 brls. 50 tcs.
Sulphur—
Catania, 1,906 bgs. 55 brls.
Tartar—
Hamburg, 10 cks. J. Currie & Co.
Tar Waste—
Rotterdam, 1 ck. J. Rankine & Son
Waste Salt—
Hamburg. 278 cks.
White Lead—
Rotterdam, 101 cks. 49 pks. J. Rankine & Son
Wood Pulp—
Christiania, 1,995 bls.
Drammen, 865 10 cs.
Gefle, 5,440 Henderson, Craig & Co.
Hamburg, 203 J. Currie & Co.
Holmestrand, 2,035
Oporto, 1,000
Rotterdam, 22 rolls. J. Rankine & Son
Zinc Oxide—
Hamburg, 50 cks.
Rotterdam, 25 pks. J. Rankine & Son
Zinc Sulphate—
Hamburg, 2 cks.
Zinc Sulphite—
Rotterdam, 5 cks. J. Rankine & Son
Zinc White—
Rotterdam, 25 cks. J. Rankine & Son

TYNE.

Week ending June 17th.

Acids—
Hamburg, 4 cks. Tyne S. S. Co.
Ammonia—
Hamburg, 2 cks. Tyne S. S. Co.
Antimony Ore—
Tampico, 9,208 bgs. Cookson & Co.
Bleaching Powder—
Antwerp, 50 cks. Tyne S. S. Co.
Chemicals *(otherwise undescribed)*
Hamburg, 17 cks. Tyne S. S. Co.
Coal Products—
Pitch
Hamburg, 92 cks. Tyne S. S. Co.
Colours—
Antwerp, 3 cks. Tyne S. S. Co.
Potash—
Antwerp, 3 cks.
Saltpetre—
Harburg, 300 t. Clephans & Wiencke
" 220
Soap—
Rotterdam, 5 cs. Tyne S. S. Co.
Starch—
Rotterdam, 44 cs. Tyne S. S. Co.
Ultramarine—
Antwerp, 2 cks.
White Lead—
Antwerp, 20 cks. Tyne S. S. Co.
Wood Pulp—
Christiania, 100 bls.
Zinc Chloride—
Rotterdam, 20 tins Tyne S. S. Co.

GOOLE.

Week ending June 14th.

Antimony—
Boulogne, 5 cks.
Barytes—
Antwerp, 200 bgs.
Hamburg, 20 cks.
Rotterdam, 22 100 bgs.
Caoutchouc—
Boulogne, 8 cks. 1 cs.
Chemicals *(otherwise undescribed)*
Antwerp, 2 cks.
Colours—
Amsterdam, 6 pks.
Boulogne, 51 cks. 2 cs. 122
Hamburg, 4 11
Rotterdam, 533 97
Dyestuffs—
Indigo
Rotterdam, 13 brls.
Farina—
Delfszyhl, 550 bgs.
Glue—
Boulogne, 1 ck.
Phosphates—
Dunkirk, 70 t.
Ghent, 868 bgs
Potash—
Calais, 4 dms
Dunkirk, 16 cks. 40
Hamburg, 2
Saltpetre—
Rotterdam, 100 bgs.
Starch—
Antwerp, 41 cs.
Ghent, 255
Waste Salt—
Antwerp, 337 cks. 330 t.
Wood Pulp—
Rotterdam, 54 bs.

GRIMSBY.

Week ending June 17th.

Barytes—
Hamburg, 1 ck.
Caoutchouc—
Antwerp, 5 cs.
Hamburg, 18
Chemicals *(otherwise undescribed)*
Hamburg, 7 cks.
Coal Products—
Aniline Dyes
Antwerp, 9 pks
Hamburg, 14 cks. 169
Colours—
Antwerp, 7 cks. 5 cs. 91 pks.
Hamburg, 3 100
Rotterdam, 4 20 bgs.
Glue—
Hamburg, 5 bgs. 7 cks. 1 cs.
Starch—
Antwerp, 115 cs.
Varnish—
Antwerp, 16 crts.
Wood Pulp—
Gothenburg, 300 bs.
Zinc Ashes—
Rotterdam, 10 cks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending June 21st.

Acids—
Cape Town, 26 cs. £27
Alkali—
Lyttelton, 2 t. 18 c. £21
Santos, 12 4 53
Ammonia—
Adelaide, 11 cs. £22
Beira, 1 12
Bombay, 3 pks. 20
Durban, 10 c. 35
Karachi, 3 cs. 10
Pt. Elizabeth, 12 18
Singapore, 28 53
Ammonium Carbonate—
Adelaide, 5 c. £11
Amsterdam, 25 kgs. 37
Rotterdam, 20 cks. 65
Ammonium Sulphate—
Bremen, 50 t. £625
Las Palmas, 10 116
Mauritius, 203 2,087
Newport News, 102 5 c. 1,045
Bleaching Powder—
Bombay, 1 t. 5 c. £13
Borax—
Fremantle, 1 t. 20 kgs. £84
Rotterdam, 50 cks. 75
Calcium Phosphide—
Bombay, 2 cs. £11
Carbonic Acid Gas—
Albany, 1 pk. £21
Channel Is., 72 tubes 27
Caustic Soda—
Auckland, 5 c. £5
Delagoa Bay, 8 t. 14 70
Dunedin, 10 9
E. London, 5 16 47
Pt. Elizabeth, 9 12
Shanghai, 4 6
Chemicals *(otherwise undescribed)*
Amsterdam, 15 kgs. £98
Antwerp, 16 cks. 10 brls. 16 pks. 306
Bombay, 52 134
Brussels, 10 kgs. 3 cs. 120
Calcutta, 102
" 30 36
Cologne, 15 89
Dunkirk, 21 dms. 75
E. London, 9 pks. 21
Genoa, 6 58
Hamburg, 21 150
Harlingen, 1 13
Melbourne, 3 cks. 20 73 167
Montreal, 6 42
New York, 23 91
Oamaru, 1 29
Oporto, 4 32
Paris, 26 brls. 16 131
Philadelphia, 16 276
Rotterdam, 17 106
Santos, 5 35
Shanghai, 30 54
Singapore, 6 36
Sydney, 8 cs. 25
Toronto, 8 58
Chloride of Lime—
E. London 2 t. 16
Citric Acid—
Adelaide, 5 c. £32
Amstderam, 2 kgs. 10 95
Barbadoes, 2 12
Bombay, 2 15
Brisbane, 3 21
Brussels, 10 60
Calcutta, 1 6
Durban, 2 cs. 10
Dusseldorf, 10 58
Fremantle, 5 38
Karachi 8 40
Melbourne, 20 160
Rotterdam, 10 70
Coal Products—
Alizarine
Boston, 41 cks. £448
St. Petersburg, 7 cs. 365

Aniline
Melbourne, 1 cs. £47
Oamaru, 12 pks. 180
Aniline Dye
Calcutta, 1 cs. £13
Melbourne, 1 23
Otago, 3 23
Aniline Oil
New York, 23 cks. 14 dms. £950
Benzol
Boulogne, 80 cks. £162
Carbolic Acid
Auckland, 6 cks. £14
Bombay, 10 dms. 6
Durban, 20 18
E. London, 6 12
Ludwigschafen, 49 252
New York, 20 149
Coal Tar Dyes
Boulogne, 4 cks. 1 cs. £49
Creosote
Newport News, 550 cks £430
New York, 203 140
Creosote Oil
New York, 1,000 cks. £752
Naphthaline
Amsterdam, 9 bgs. £9
Hamburg, 100 63
New York, 201 cks. 191
Paris, 51 48
Rotterdam, 4 9
Pitch
Alexandria, 100 cks. 200 brls. £81
Antwerp, 3 / 300 t. 340
Boston, 250 cks. 95
Dunkirk, 160 t. 200
Hamburg, 50 cks, 140
Hobart, 22 pks. 10
Shanghai, 20 17
Pyridine
Otago, 5 cks. 5 cs. £12
Tar
Archangel, 10 rnlts. £9
Durban, 80 dms. 24
Hamburg, 446 brls. 136
Launceston, 60 pks. 21
Pt. Elizabeth, 50 dms. 6
Toluol
Rotterdam, 50 cks. £170

Coal Products (*otherwise undes.*)—
Cape Town, 75 pks. £8

Copper Sulphate—
Hobart, 11 c. £13
Paris, 3 t. 1 125

Cream of Tartar—
Brisbane, 5 c. £21
E. London, 3 10
Launceston, 1 t. 77
Melbourne, 1 10 116
Townsville, 3 12 300
Wellington, 1 9 110

Disinfectants—
Auckland, 3 cs. £12
Bombay, 100 dms / 6 pks. 53
Canterbury, 8 28
Cape Town, 240 cks. 52
Durban, 5 90 33
Fremantle, 143 45
Hamburg, 45 20
Hiogo, 10 100 dms. 76
Melbourne, 9 25
Mombasa, 200 pks. 55
Seville, 2 12

Glycerine—
Hamburg, 20 t. 2 c. £550

Manure—
Barbadoes, 113 t. 8 c. £1,033
Dunedin, 292 7 1,170
Landerneau, 250 2,000
Mauritius, 24 4 238
Motril, 202 13 1,620
Riga, 103 19 259

Nitric Acid—
Channel Is., 14 crbys. £28

Oxygen Gas—
Amsterdam, 1 cs. £14

Pearl Ash—
Mossel Bay, 10 c. £18

Phosphoric Acid—
New York, 23 cs. £92

Phosphorus—
Melbourne, 4 c. £34
Sydney, 23 pks. 180
Tampico, 2 19

Potash—
B. Ayres, 2 t. 8 c. £37
Hong Kong. 4 9

Potassium Bichromate—
Lyttelton, 16 c. £27

Potassium Chlorate—
Calcutta, 1 t. £35
E. London, 1 5 c. 45
Hong Kong, 3 5
Tampico, 1 36

Potassium Cyanide—
Adelaide, 2 t. £250
Delagoa Bay, 10 120 cs. 2,300
Fremantle, 10 16 c. 90 1,579
Genoa, 15 175
La Paz, 100 553
Melbourne, 1 6 146
Montreal, 1 10 185
Sydney, 1 18 279

Salammoniac—
Samsoun, 2 t. £66

Saltpetre—
Auckland, 15 c. £15
Durban, 10 11
Newport News, 20 t. 12 387

Salts of Lime—
Brussels, 2 c. £22

Sheep Dip—
Brisbane, 30 dms. £29
Durban, 1 t. 5 c. 44
Launceston, 75 55

Soda—
Brisbane, 2 t. £13
Demerara, 2 9 c. 10
Rotterdam, 5 9 30

Sodium Bicarbonate—
Bangkok, 6 c. £6
Philadelphia, 11 14

Sodium Sulphate—
Ghent, 110 t. £165
Gothenburg, 250 475

Sulphuric Acid—
Durban, 15 c. £18
Madras, 25 cs. 10

Superphosphates—
Timaru 100 t. £315

Tannate of Soda—
Bombay, 2 t. 15 c. £26

Tartaric Acid—
Cape Town, 2 c. £11
Dunedin, 5 cs. 23
Fremantle, 3 13
Hamburg, 1 t. 114
Karachi, 5 30
Launceston, 3 17
Melbourne, 10 54
Pt. Elizabeth, 2 12
Wellington, 7 39

LIVERPOOL.

Week ending June 21st.

Ammonium Carbonate—
Antwerp, 10 c. £14
Barcelona, 9 1 q. 16
Copenhagen, 3 t. 84
Genoa, 1 26
Hamburg, 1 31
Libau, 10 15
Rangoon, 17 21
Venice, 1 26

Ammonium Muriate—
Philadelphia, 30 cks. £192

Ammonium Sulphate—
Alicante, 11 t. 16 c. 2 q. £140
Gd. Canary, 30 362
Las Palmas, 66 17 848
Samarang, 35 4 1 500
Sourabaya, 369 11 2 4,492
Valencia, 79 11 1 823

Amorph. Phosphorus—
Havana, 5 c. 2 q. £72

Arsenic—
Pernambuco, 20 kgs. £23
Rouen, 5 t. 13 c. 107

Basic Slag—
Bermuda, 4 t. £12
Kingston, 3 2 q. 50

Bleaching Powder—
Baltimore, 49 cks.
Bombay, 18 cs.
Boston, 340
Caxias, 11 brls.
Chicago, 45
Fiume, 31
Genoa, 32
Johannesburg, 60
Leghorn, 53
Nantes, 29
New York, 153
Newport News, 80
Philadelphia, 114
Rio de Janeiro, 25 cs.
Rouen, 15
Talmazo, 20

Borax—
Antwerp, 4 t. 4 c. 1 q. £72
Braila, 1 7 22
Delagoa Bay, 5 80
Hamburg, 6 2 98
Havana, 10 6 1 158
Montreal, 6 15 115
Natal, 4 4 3 63
St. John, N.B., 1 1 19
Vera Cruz, 5 2 3

Calcium Chloride—
Adelaide, 5 t. 4 c. £12
Amsterdam, 4 18 11
Boston, 2 95
Melbourne, 10 4 22
Montreal, 10 4 23
New York, 10 6 24

Castor Oil—
Accra, 7 cs.
Antofagasta, 14 dms.
Panama, 120

Caustic Soda—
Alexandria, 40 dms.
Amsterdam, 310
Antwerp, 7
Bahia, 15
Barcelona, 20 cks.
Bilbao 28 brls.
Bombay, 50
Brantford, 40
Brindisi, 15
B. Ayres, 100
Calcutta, 150
Catania, 53
Cincinnatti 100
Fiume, 59
Funchall, 10
Genoa, 212
Hamburg, 188
Havana, 140
Havre, 10
Hiogo, 207
Hong Kong, 10 2
Ibrail, 15
Jaffa, 100
Kobe, 136
Leghorn, 53
Malaga, 15
Maracaibo, 10
Melbourne, 275 10 pks.
M Video, 25
Montreal, 180
Naples, 22
New York, 25
Oporto, 55
Para, 20
Parnahyba, 20
Pernambuco, 50
Progresso, 65
Rangoon, 15
Rotterdam, 27 cks.
Roubaix, 35
Rouen 43
St. John's, Nfld, 10
San Blais, 100
Santos, 30
Sao Paulo, 34
Sarnia, 40
Shanghai, 8
Sydney, 5
Tampico, 12
Tarragona, 40
Trieste, 58
Vera Cruz, 74

Chemicals (*otherwise undescribed*)
B. Ayres, 2 t. 1 q. £6
Barcelona, 2 cks. 7 2 c. 119
Bilbao, 4 32
Bombay, 1 16 50
15 brls. 71
Bordeaux, 4 cks. 18
Calcutta, 143
Callao 17 13 81
Catacola 1 2 6
Fremantle, 10 7
Genoa, 8 19 2 82
Honolulu, 1 9 7
Lisbon, 10 2 49
Madras, 20 16 3 1,721
Melbourne, 3 2 27
Odessa, 20 100
Porto Allegre, 1 19 1 9
Para, 5 6
Sansoun, 5 cks. 33
Santos, 4 18 23
Seville, 3 1 3 47
Smyrna, 5 1 3 30
St. John, N.B., 3 1 1 14

China Clay—
Bilbao, 200 bgs.
Boston, 2,280 cks.
Maranham, 60
Montreal, 24
Newport News, 550
Philadelphia, 220
Rio de Janeiro, 25

Citric Acid—
Corrina, 1 c. £7
Tampico, 2 14

Coal Products—
Alizarine Oil
Lisbon, 2 cks.
Aniline Dyes
Lisbon, 10 cks.
Aniline Oil
Rouen, 2 dms.
Aniline Salt
Boston, 50 cs.
Hercules, 14 c.
Carbolic Acid
Alexandria, 16 brls. £38
Amsterdam, 1 t. 1 c. 65
Brisbane, 8 7
Kingston, 41 cks. 3 cs. 100 dms. 111
Montreal, 1 t. 2 c. 2 q. 10
Natal 100 dms. 130
Philadelphia, 5 11 150
Rotterdam, 2 2 45
Creosote Oil
Bordeaux, 240 cs.
Newport News, 500 brls.
Creosote Salt
Bombay, 1,146 bgs.
Tar
Bombay, 13 brls.
Karachi, 25 rnlts.
Puerto Cabello, 12
Sierra Leone, 50 kgs. 9
Tar Oil
Antwerp, 24 cks.

Copperas—
Bahia, 5 c. £7
Vera Cruz, 2 t. 15 1 q. 5

Copper Sulphate—
Antwerp, 16 t. 3 c. £406
Barcelona, 10 11 2 q. 259
B Ayres, 2 50
Bilbao, 5 14 2 136
Bordeaux, 53 5 3 1,242
Catania, 4 97
Genoa, 29 17 3 601
Ghent, 30 1 2 735
Madras, 9 13
Nantes, 27 7 684
Naples, 24 19 1 358
Rio de Janeiro 2 3 4
Rouen 74 11 1 815
Valencia, 20 2 3 210
Varna 19 25
Vera Cruz, 14 19

Disinfectants—
Alexandria, 2 t. 12 dms. £98
Bahia, 8 c. 10
Bombay, 2 3 16
New York, 2 14
Rangoon, 2 4 3 q. 81

Glycerine—
Bilbao, 14 t. 17 c. 3 q. £551
Bombay, 1 60
Montreal, 18 40
New York, 13 1 296

Iron Oxide—
Montreal, 2 t. £15

Magnesia—
Paris, 1 1 cs. 1 pk.

Magnesium Chloride—
Oporto, 4 t. 1 c. £10

Manure—
B. Ayres, 28 c. 2 q. £20
Las Palmas, 7 t. 10 86
New York, 4 48
Rosario, 2 60

Paint—
Axim, 4 cks.
Belize, 230 kgs. 4
Beyrout, 10
B. Ayres, 2
Campeche, 50
Cardenas, 7
Cartagena, 40 2
Corenel, 4
Curacao, 56 pks.
Degama, 10 21
Gibaru, 20 4 cks.
Havana, 11
Hong Kong, 1 9
Honolulu, 20
Karachi, 1 cs. 8
Kingston, 5 3
Lagos, 140
Lisbon, 36 3 dms.
Loando, 50 1 40
Malta, 8
Manaos, 5 brls. 6 cks.
Melbourne, 45
M. Video, 10
Mossamedes,
Pachuca,

Panama, 28
Para, 28
Parnahyba, 280 bgs.
Porto Novo, 80
Pretoria, 150 cs.
St. John's, N'fd, 105
St. Thomas, 150
Savanilla, 75
Sierra Leone, 16 pks.
Sydney, 9
Talcahuano, 3 brls.
Valparaiso, 100 18 cks.
Vera Cruz, { 4 / 48 dms.

Painters' Colours—
Algoa Bay, 20 dms. 5 cks.
Antofagasta, 10
Antwerp, 1 kg. 8
Bombay, 1,152 67 cs. 3
Boston, 18
E. London, { 27 / 1 brl. / 1 cs. } 10
Frontera, { 19 / 4 brls. }
Honda, 8 pks.
Johannesburg, 97 7
Malta, 125 3
Manaos, 6 8
Mauritius, 786
Newport News, 100
Para, 18 tcs. 46 81
New York, 2 cs.
Penang, 4
Rotterdam, 50 bgs.

Paraffin Wax—
B. Ayres, 50 bgs.
Naples, 100
Patras, 5

Phosphates—
Delagoa Bay, 4 t. £8

Potash—
B. Ayres, 4 c. 3 q. £6

Potassium Bichromate—
Malaga, 2 t. 5 c. £65
Rio de Janeiro, 19 2 q. 40
Rouen, 5 200
Vera Cruz, 1 46

Potassium Carbonate—
Rio de Janeiro, 1 c. £2

Potassium Chlorate—
Boston, 25 t. £267
Havana, 1 6 c. 1 q. 48
Montreal, 1 30
Odessa, 9 16 293
Philadelphia, 12 10 376
Rotterdam, 10 16
Tampico, 2 65
Vera Cruz, 15 23

Potassium Cyanide—
Cuidad Bolivar, 7 c. 1 q. £50

Potassium Nitrate—
Natal, 9 t. 15 c. £175

Potassium Silicate—
Amsterdam, 1 t. 7 c. £10

Potassium Stannate—
Bombay, 2 t. 9 c. 3 q. £ 95

Red Oxide—
Montreal, 7 t. £31

Salammoniac—
Alexandria, 2 t. £65
Barcelona, 11 c. 20
Hobson's Bay, 11 17
Johannesburg, 2 5
Melbourne, 5 17 2 q. 115
Odessa, 3 99
Philadelphia, 10 cks. 170
Progresso, 2 1 6
Smyrna, 8 14
Trieste, 1 t. 1 31

Salt—
Abonnema, 10 t.
Akassa, 493 8 c.
Antwerp, 175
Baltimore, 485
Belize, 8 18
Bombay, 150
Bonny, 8 7
Boston, 230 129 cks.
Brisbane, 348
Calcutta, 7,830
Cameroons, 33 9
Cape Town, 72 6
Caibarien, 25
Cardenas, 25
Cienfuegos, 25
Chama, 7 9
Chicago, 35
Delagoa Bay, 16 14
E. London, 91 3
Fernando Po, 5
Ghent, 133
Johannesburg, 4 18
Kingston Jam., 25
Montreal, 477
Mossel Bay, 25
N. Orleans, 375
Para, 1,192
Punta Arenas, 30
Rio Del Rey, 8
Rotterdam, 165
San Francisco, 707
Sierra Leone, 1 cs.
Sydney, 128

Salt Cake—
Baltimore, 63 t. 15 c. £106
Hobson's Bay, 21 6 62

Saltpetre—
Cardenas 7 c. £8
Honolulu, 2 5
Maranham, 9 3 q. 11
Para, 1 t. 10 33
Pernambuco, 2 17 64
San Francisco, 8 2 2 175
Syra, 1 6 3 98
Vera Cruz, 1 20

Sheep Dip—
B. Ayres, { 54 t. 4 c. 1 q. / 2,500 dms. } £2,092
Calcutta, 20 20

Soap—
Akassa, 141 bxs.
Algoa Bay, 755 60 cs.
Antigua, 110
Antwerp, 133
Arica, 10
Assinee, 20
Barbadoes, 500 2
Benin, 112
Bombay, 26
Bonny, 250
Boston, 10 pks.
Calcutta, 27
Cameroons, 400
Brisbane, 700
C. C. Castle, 48
Chefoo, 47
Christiania, 100
Copenhagen, 80
Curacao, 145
Demerara, 2,000 21
Durban, 125 50 20 bdls.
Fernando Po, 112
Ferrand Bay, 1 1 ck.
Genoa, 10
Gothenburg, 1
Gd. Canary, 10
Grenada, 175
Halifax, 400
Hamburg, 25
Ibrail, 21
Johannesburg, 75
Karachi, 20
Kingston, 1
Lagos, 724
Lahou, 50
Las Palmas, 1,124
Loanda, 1 bdls.
Lydenbay, 25
Macassar, 725
Marta, 62
Manaos, 2,515
Mannheim, 926
Manta, 50
Matadi, 19
Melilla, 5
Montego Bay, 51
M. Video, 2
Mossel Bay, 1,100
Natal, 10
Old Calabar, 1,112
Ogove 1
Opobo, 500
Ottawa, 300
Piræus, 6
Pt. Elizabeth, 8,025
Pt. Natal, 780 5 15
Pretoria, 20
Rangoon, 27
Rio de Janeiro, 3
Rotterdam, 329
St. John, N.B., 400
St. John's, N'fd, 375 7
Salonica, 45
Salt Pond, 262 15
Savanilla, 8
Sierra Leone, 40
Sydney, 1,000
Teneriffe, 750
Tripoli, 4
Valparaiso, 16
Winnipeg, 500

Soda Ash—
Adelaide, 143 cks.
Boston, 58 bgs.
B Ayres, 50
Calcutta, 105 kgs. 106
Callao, 50
Caxias, 11 brls.
Hiogo, 310
Johannesburg, 120
Kobe, 620
Leghorn, 120 bgs. 40
Libau, 350
Lisbon, 27
Maranham, 10
Melbourne, 144
Montreal, 100
New York, { 500 / 47 tcs. } 109
Oporto, 9
Philadelphia, 16
Piræus, 20
Rangoon, 50
Rotterdam, 30 2
Saltillo, 100
Smyrna, 200
Sydney, 48
Syra, 100 brls.
Talcahuano, 50
Valencia, 130
Valparaiso, 150
Vera Cruz, 88
Venice, 50
Willebraech, 600

Soda Crystals—
Boston, 280 brls.
Calcutta, 33 kgs 87 cks.
Constantinople, 100
Gibraltar, 50
Honolulu, 50
Malta, { 15 / 200 bgs. 50 pks. }
M. Video, 18 kgs.
Montreal, 100
New Glasgow, 25
New York, 56 cks
Philadelphia, 140
Piræus, 20
Rosario, 10
St. John's N'fd. 55

Sodium Acetate—
Vera Cruz, 2 cks

Sodium Bicarbonate—
Adelaide, 100 kgs.
Alicante, 30 2 cks.
Barbadoes, 20
Barcelona, 55 6
Bayonne, 10 brls.
Bilbao, 80
Bombay, 20 200 dms.
Callao, 20
Canea, 40
Cape Town, 20
Colombo, 15
Hamburg, 20
Hiogo, 250 375 cks.
Johannesburg, 50 bgs.
Kobe, 600 kgs.
London, 20
Melbourne, 284
Mexico City, 20
Montrea 100
Naples, 4
New Glasgow, 250 pls.
Odessa, 400
Rangoon, 20
Rio de Janeiro, 11
Rotterdam, 20
Rouen, { 90 dms. / 10 cks. }
St. John's, N'fd., 20
Santander, 25
Singapore, 4
Smyrna, 45
Sydney, 106
Valencia, 50 bgs.

Sodium Chlorate—
Vera Cruz, 3 cks.

Sodium Silicate—
Mauritius, 10 brls.
Piræus, 10

Sodium Sulphate
Leghorn, 400 bgs.

Starch—
Bombay, 80 bgs.

Sulphur—
Boston, 25 t. 1 c. £107
Colombo, 1 1 6
Gothenburg, 100 2 427
Para, 15 5
Vera Cruz, 1 1 6

Tartaric Acid—
Para, 1 c. £7

Varnish—
Bombay, 1 cs
B. Ayres, 20
Cadiz, 8
E. London, 2
Genoa, 7
Havana, 1
Hong Kong, 1 dm.
Huelva, 2
Johannesburg, 7
Landana, 6 brls.
Rio de Janeiro, 4 cks.
Rotterdam, 1 cs.
Savanilla, 4
Valparaiso, 4

White Lead—
Halifax, 20 cks.

Zinc Chloride—
Bilbao, 3 t. 9 c.
Bombay, 22 9 2 q.
Bourgas, 21 9

MANCHESTER

Week ending June 21st.

Ammonium Carbonate—
Montreal, 40 cks.

Caustic Soda—
Paranagua, 50 dms.
Porto Alegre, 50

Coal Products—
Aniline Salt
Germany, 10 cks.
Carbolic Acid
France, 1 btle.
Naphtha
Paris, 26 cks.
Pitch
Belgium, 405 t. 13 c.
Toluol
Germany, 30 dms.

Colours—
Belgium, 18 cks.

Dyestuffs—
Tan Extracts
Belgium, 15 cks.
Toronto, 10

Gallic Acid—
Germany, 1 kg.

Glue—
Germany, 21 cks.
Holland, 12

Glycerine—
Germany. 10 dms.

Naphthol Salts—
Switzerland, 4 cks.

Paint—
Bussorah, 2 cks.

Soap—
Bushire, 25 bxs.
Montreal, 0 cs.
Sydney, N.S.W., 7

Soda—
Holland, 5 cks.

Sodium Naphthionate—
Switzerland, 17 cks.

Starch—
France, 16 bgs.

Zinc Chloride—
Germany, 20 cks.

HULL.

Week ending June 17th.

Alkali—
Bergen, 2 cks. 4 dms.

Basic Slag—
Reval, 201 t.
Stettin, 2,840 bgs.

Caustic Soda—
Reval, 54 cks. 60 dms.

Chemicals (*otherwise undescribed*)
Alexandria, 150 cks. 12 pks.
Amsterdam, 38 18
Bergen, 5
Christiania, 4 cs. 700 slbs.
Danzig, 2 13 pks.
Drontheim, 200
Genoa, 58 11
Gothenburg, 8
Hamburg, 260
Konigsberg, 4 btls.
Marseilles, 26
Naples, 10
Riga, 14 pks.
Rotterdam, 45
St. Petersburg, 3 35 btls.
Stockholm, 2
Wasa, 7 1

Coal Products—
Creosote
N. Orleans, 15,000 brls.
Pitch
Antwerp, 332 t.
Bergen, 10 kgs.
Christiansund, 19 c.
Dunkirk, 74 t.
Ghent, 4 cks.
Stavanger, 10 kgs.

Tar
Amsterdam, 35 cks.
Antwerp, 2
Copenhagen, 13
Drontheim, 12
Helsingfors, 200
Rotterdam, 6
Stettin, 5
Wasa, 45

Cottonseed Oil—
Christiania, 10 c.
Dunkirk, 12 t. 5
Gothenburg, 18
Hamburg, 15 1
Rotterdam, 37 12
Rouen, 5 2
Stockholm, 5 2

Glue—
Hamburg, 5 bls.

Linseed Oil—
Amsterdam, 15 t. 8 c.
Antwerp, 2 9
Christiania, 3
Christiansand, 1 15
Christiansund, 4 13
Copenhagen, 1 15
Drontheim, 12 18
Rotterdam, 7 14

Manure—
Amsterdam, 20 cks.
Hamburg, 1,001 bgs.

Painters' Colours—
Abo, 1 cs.
Alexandria, 3
Amsterdam, 15 cks.
Antwerp, 5 3 260 dms.
Copenhagen, 4 1
Danzig, 1 1
Drontheim, 15
Dunkirk, 4
Ghent, 23 91
Gothenburg, 100
Hamburg, 38 3
Harlingen, 1
Jersey, 1 1 hmpr.
Leghorn, 8 dms.
Marseilles, 31
Norrkoping, 6
Rotterdam, 6 1 1 pk.
Rouen, 45
Stettin, 5 5
Stockholm, 46 3
Wasa, 2

Salt—
Reval, 10 t.

Soap—
Alexandria, 22 cs.
Amsterdam, 13
Drontheim, 90
Gothenburg, 2

Starch—
Danzig, 50 cs.
Norrkoping, 5
Stockholm, 25

Tallow—
Alexandria, 5 cks.
Antwerp, 39
Hamburg, 60
Rotterdam, 37

Varnish—
Amsterdam, 1 ck.
Antwerp, 2 3 c. 2 pks.
Danzig, 5
Ghent, 1 1
Gothenburg, 1
Hamburg, 1 1
Stettin, 10
Stockholm, 7
Wasa, 20

Wood Pulp—
Antwerp, 25 bls.

GLASGOW.

Week ending June 22nd.

Acetate of Lime—
Italy, £35

Ammonium Carbonate—
Stockholm, £65

Ammonium Muriate—
U.S.A., £235

Ammonium Sulphate—
Amsterdam, 100 t. 5 c.
Barcelona, 75 14 1 q.
Valencia, 164 12 1

Bones—
Antwerp, 4 t. 19 c. 3 q.

Borax—
Amsterdam, £26

Chemicals (*otherwise undescribed*)
Pt. Darwin, £143
Rotterdam, 850

Coal Products—
Creosote
Russia, £445
Creosote Salts
Antwerp, £125
Pitch
Antwerp, £188
Bombay, 150
Canada, 120
Hamburg, 309 t.
Italy, 765 15s.
Odessa, 23
Riga, 110
Russia, 97
Tar
Bombay, £36
Calcutta, 125
Danzig, 93 t. 9 c.
Hamburg, 1 18
Madras, 25
Rangoon, 92
Riga, 530
Russia, 275 10s.
St. Petersburg, 1,722

Copperas—
Bombay, 33 t. 17 c. 3 q.

Dyestuffs—
Argols
Canada, £20

Farina—
Bombay, £29
Calcutta, 136 10s.
Gothenburg, 70

Glue—
Canada, £23
Rangoon, 72

Gutta Percha—
Amsterdam, £23 7s.
Rotterdam, 44

Lead Acetate—
Bombay, £43

Linseed Oil—
B. Ayres, 2 t. 14 c.
Canada, 4 5 3 q.
Havana, 8 3
Mauritius, 1 10
Rangoon, 1 2
Shanghai, 8 6 2
Valparaiso, 7 2

Litharge—
Bombay, £27

Logwood Extract—
Canada, £86 18s.

Magnesium Sulphate—
Montreal, £51 11s.
Paris, 22

Manganese—
Rotterdam, £120

Manure—
Durban, 10 t.
Valencia, 102 16 c.

Ochre—
Rouen, £30

Oxalic Acid—
Stockholm, £29

Paint—
B. Ayres, £119
Calcutta, 23 15s.
Coronel, 170
Havana, 130
Iquique, 22
M. Video, 45
Rangoon, 410
Singapore, 380
Valparaiso. 165

Painters' Colours—
Calcutta, £167
Cape Town, 272
Colombo, 37
E. London, 177
Mauritius, 39
Rangoon, 97 10s.
Shanghai, 249
U.S.A., 26

Paraffin Wax—
Antwerp, £28
Barcelona, 80
Bombay, 46
Bordeaux, 105
Genoa, 40
Italy, 214
Leghorn, 192
Nantes, 30
Paras, 20
Russia, 942
Sicily, 84
Stockholm, 72
Valencia, 50

potassium Bichromate—
Barcelona, £1,737
Bordeaux, 150
Bombay, 100
Hiogo, 233
Madras, 136
Montreal, 90
New York, 418
Paris, 290
Rotterdam, 67
Rouen, 244
Stockholm, 12

Potassium Cyanide—
Melbourne, £205
Sydney, 308

Potassium Muriate—
Valencia, £83

Potassium Prussiate—
New York, £292 17s.

Red Lead—
Bombay, £20

Sheep Dip—
B. Ayres, £75

Soap—
Bombay, 1 t. 8 c.
Colombo, 3 8 3 q.
E. London. 11 5

Sodium Bichromate—
Barcelona, 5 t. 14 c.
Bombay, 2 13 3 q.
Montreal, 2 9 2
New York, 3 5 1
Rouen, 17 11

Sodium Nitrate—
Paris, 2 t. 5 c. 1 q.

Sulphuric Acid—
Rangoon, £358

Turpentine—
Singapore, £36

Varnish—
Rangoon, £20

White Lead—
Natal, £48
Transvaal, 241

Zinc Ashes—
Rotterdam, 24 t. 5 c. 1 q.

TYNE.

Week ending June 17th.

Alkali—
Amsterdam, 14 t. 9 c. 3 q.
Christiania, 5 7
Copenhagen, 1 15
Riga, 65 12
Rotterdam, 6 13 1

Ammonium Sulphate—
Rotterdam, 25 t. 7 c.

Antimony—
Amsterdam, 5 t.
Hamburg, 15
Rotterdam. 2
St. Petersburg, 25

Barium Binoxide—
Barcelona, 4 t. 4 c. 2 q.
Rotterdam, 5 6 2
Rouen, 10 15 1

Barium Carbonate—
Antwerp, 2 t.
Hamburg, 156

Bleaching Powder—
Christiania, 10 t. 6 c.
Copenhagen, 4 18 1 q.
Drontheim, 10 3
Gothenburg, 30 18 3
Hamburg, 29 8 3
Riga, 27 13 2
Rotterdam, 5 9 3
Stockholm, 2 1 3

Bones—
Rouen, 10 t. 14 c.

Caustic Soda—
Antwerp. 34 t. 16 c. 2 q.
Barcelona, 86 4 2
Christiania, 3 6 3
Copenhagen, 2 18
Gothenburg, 9 17 1
Hamburg, 18 13 2
Rotterdam, 29 1
Vera Cruz, 89 16 1

Chemicals (*otherwise undescribed*)
Christiania, 11 c. 3 q.

Coal Products—
Carbolic Acid
Rotterdam, 5 t. 13 c. 2 q
Pitch
Rouen, 40 t.
Tar
Archangel, 3 t. 11 c.

Ferro Manganese—
Bilbao, 67 t. 7 c. 1 q.

Litharge—
Hamburg, 16 c.
Lisbon, 1 t. 8
Riga, 5 4
Stockholm, 2 16

Magnesia—
Antwerp, 5 c. 1 q.
Barcelona, 9 1
Copenhagen, 1 2
Hamburg,

Paint—
Bergen 14
Copenhagen, 1 t. 10 1 q.
Gefle, 17
Gothenburg, 12
Hamburg, 1 5
Rotterdam, 2
Stockholm, 2

Painters' Colours—
Rotterdam, c.

Pyridine—
Hamburg, 13 .

Red Lead—
Amsterdam, 20 t. 17 c. 1 q.
Archangel, 11 3
Christiansand, 1 2 2
Copenhagen, 2 19 3
Drontheim, 3 16
Gefle, 5 18
Genoa, 10 12 2
Gothenburg, 5 2 2
Hamburg, 17 17 3
Lisbon, 33 19 1
Riga, 1 6 1
Stockholm, 25 2 1

Salammoniac—
Hamburg, 2 t.

Soap—
Pomaron, 3 c. 2 q.

Soap Lyes—
Hamburg, 9 pks

Soda—
Christiania, 4 t. 8 c.
Rotterdam, 20
Stockholm, 10 1 2 q.

Soda Ash—
Gothenburg, 21 t. 11 c. 3 q.

Sodium Sulphate—
Gothenburg, 5 t.

Sulphur—
Gothenburg, 35 .
Riga, 10

White Lead—
Copenhagen, 19 c. 1 .
Oporto, 1 t. 9 3
Stockholm, 1 6 1

GOOLE.

Week ending June 14th.

Chemicals (*otherwise unaescribed*)
Amsterdam, 2 cks.
Hamburg, 1 dm. 5 pks.
Rotterdam, 5

Coal Products (*otherwise undes.*)—
Amsterdam 113 cks.
Antwerp, 110
Boulogne, 45 2 cs. 1 tin
Hamburg, 1
Rotterdam, 8 2

Dyestuffs (*otherwise unaescribed*)
Ghent, { 64 bgs. / 2 cks. 5 cs.
Hamburg, 17 9
Rotterdam, 44

Manure—
Ghent, 66 bgs.
Rotterdam, 766

Painters' Colours—
Ghent, 9 cks.
Hamburg, 102 bgs.

GRIMSBY

Week ending June 17th.

Alkali—
Antwerp, 41 cs.
Rotterdam, 6

Chemicals (*otherwise undescribed*)
Malmo, 1 cs.

Coal Products (*otherwise undes.*)—
Dieppe, 103 cks. 2 cs.
Rotterdam, 25

Painters' Colours—
Antwerp, 2 cks.
Hamburg, 3 cs.
Rotterdam, 2

PRICES CURRENT.

WEDNESDAY, June 28, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric ,, per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	10	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	21	10	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	7	6
,, ,, (grey) Hull ,,	12	6	3
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4
Antimony per ton	39	10	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	42/6 to 65/-		
Bleaching Powder, 35 % nett ,,	4	2	6
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 30% A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	6¾
,, 50/90 ,,	0	0	7½
Carbolic Acid (crude 60°) ,,	0	2	1
,, (crystallised 40°) per lb.	0	0	7¼
,, (liquid 95/97%) per gallon	0	1	0
Creosote (ordinary) ,,	0	0	3
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	5	0
Solvent Naphtha, 90% at 160° per gallon	0	0	0
Copper per ton	70	5	0
,, Sulphate ,,	25	0	0
,, Oxide (copper scales) ,,	57	0	0
Glycerine (crude) 80% ,,	25	10	0
,, (distilled S.G. 1250°) ,,	48	10	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	2	6
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	15	10	0
,, Litharge Flake (ex ship) ,,	17	0	0
,, Acetate (white ,,) ,,	22	15	0
,, ,, (brown ,,) ,,	17	15	0
,, Carbonate (white lead) pure ,,	18	10	0
,, Nitrate ,,	22	10	0
Lime, Acetate (brown) (ex ship) per ton	5	0	0
,, ,, (grey) (ex ship) ,,	8	0	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	2	10	0
,, Carbonate ,, per cwt.	1	17	6
,, Calcined Magnesia per ton	9	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate ,, per cwt.	2	0	0
,, Ore, 70% ,, per ton	3	10	0
Methylated Spirit, 61° o.p. per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° o.p. ,,	0	3	8
Oils:—			
Cotton-seed per ton	17	10	0
Linseed ,,	22	0	0
Stearine ,,	26	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	0	0
,, Chlorate per lb.	0	0	3¼
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	22	10	0
,, ,, ,, 75/80 % ,,	18	0	0
,, Potash Hydrate Liquid 50 % ,,	11	10	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	8
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	8	15	0
Silver (metal) per oz.	0	2	3½
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. works)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	0	0
,, ,, (Soda Crystals) ,, ,,	2	10	0
,, Acetate (ex-ship) ,,	12	15	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¼
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	7	12	6
,, ,, (74 % Caustic Soda) ,, ,, ,,	7	7	6
,, ,, (70 % Caustic Soda) ,, ,, ,,	7	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	6	0	0
,, ,, (pure liquor 90° Tw.) ,, ,,	3	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	8	0
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate ,, per lb.	0	0	6¼
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % ,, per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	6	6
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide ,,	7	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4¼
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	6	15	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	24	10	0
Tin Crystals per lb.	0	0	7⅞
,, English Ingots per ton	122	10	0
Zinc (Spelter) ,,	25	10	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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LATE ADVERTISEMENTS.

FOR SALE, 50 new painted closed-top Iron Tanks, 4 ft. cube, capacity 400 gallons, manhole in tops.—Apply, Thos. W. Ward, Fitzalan Chambers, Sheffield.

WORKS FOR SALE.—Capable of producing 150 tons weekly of Sulphuric Acid, also Muriatic and Nitric acids, with other chemicals in good demand. On rail and canal; cheap coal and salt.—Address, "Salt," *Chemical Trade Journal* Office, Manchester.

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Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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WHERE WILL IT END?

THERE seems no limit to the possibilities of competition or the lengths to which those engaged in the struggle for business will go. When Gilbert immortalised the woes of a policeman, however, we think he might with equal truth have added that the lot of the drysalter and chemical manufacturer is also "not a happy one."

We know that owing to excessive competition the tendency of the closing years of the century has been towards combination, or "amalgamation," as some (who do not like the ring of the former word) prefer to call it—owing, we suppose, to the analogy to "rings"—and this conjunction of forces has been looked upon by many as a satisfactory antidote to rabid competition. Consequently, we have had many fusions of firms in the chemical, dyewood, dyeing, and engineering industries, even during the past twelve months; but this week we have had a further instance of amalgamation, which shows that the "antidote" has now been attacked by the self-same competition-fiend that it was expected to subdue. We have become familiarised with competition in trade; but now that it is breaking out in the methods and styles of combination, it is only natural to wonder what the end will be.

The particular instance to which we refer is the Yorkshire Indigo, Scarlet and Colour Dyers, Ltd., the subscription list of which closes to-day at noon. It is only a little more than a year ago since several of the largest dyewood and drysaltery firms in the United Kingdom pooled their interests, and many were the advantages which were to be gained in this way when fighting against competition. Having thus sought to protect themselves, what happened next?—within six months the Dyers' Combine was a thing of the past. So far, so good. We know the truth of the adage concerning the strengthening effect of unity, and as one branch of trade united its forces, so naturally would the other branches that were affected do the same. But this latest form of combination has gone one better, and inaugurates the amalgamation of *industries* as well as of firms. The Y. I. S. and C. D. Limited is not a mere alliance of dyers, but it embraces the makers of the drysalteries, extracts and other goods which dyers have to buy from outsiders in order to carry on their business. If this principle is to be carried much farther, of what avail will simple combination be to dyewood and drysaltery dealers? The prospectus states that the new company will be in a position to manufacture and supply most of its own dyewares, and will take over a drysaltery, dyeware, and chemical business, which is one of the best known and most important of its kind, as well as valuable patents for myrabolam grinding, extracting, dyeing, and drying machines.

It does not require an excessive flight of imagination to picture a future in which "the butcher, the baker, the candlestick maker," a politician, and one oil magnate will have formed themselves into the British Trade Control Trust,

and then the rest of us can sit and whittle sticks while they run this little island.

There is one direction, however, in which drysalters may derive some compensating benefits, and that is the consolidation and suppression of tips, if we may so express ourselves. In their prospectus the Y. I. S. & C. D., Ltd, flatter themselves on two points:—(1) The number of competent managers and foremen is limited, and the services of those hitherto employed by the several firms will be retained by the company. (2) Manufacturers are indisposed to risk changing from dyers who have been accustomed to deal satisfactorily with their particular goods, and this is especially the case with indigo and scarlet dyeing.

Nevertheless, we think the cause for flattery is on the side of the drysalter. If the firm supply their own drysalteries there will be no room for "discrimination" in proportion to the "spiff." Quality will be the only criterion. The dyers will have to dye with what is given them, and that without anything "on it." We do not think this will please these dyers, whose number is limited. If the company wish to keep them contented, and prevent them going away to firms that are supplied by outsiders, they will have to make the loss up in wages; and when one firm has to pay the "levy," which has so long been shared by the numerous external drysalters, the tight shoe will be on the other foot, and the directors will learn what a heavy burden they have taken off the shoulders of their former trade associates.

In regard to the second item which we quoted as being mentioned as a subject for congratulation, they will find that their new responsibilities do not end with money. The worry of bad work will yet remain. They will have to combat the inscrutable "difficulties" and perpetual complaints of the unsatisfied dyer—a task which has hitherto fallen almost exclusively to the drysalter who wanted to "get in" with his goods. Manufacturers may not be so "indisposed to risk changing" while the company is learning how to manage a mulish dyer, and they can hardly expect the drysalter who has been "strung up" to divulge the experience he has gained in so many years, and at such a price.

Viewed in this light, it appears possible that the tendency to compress industries may not squeeze all the juice out of those who at present are looked upon as the lees and mush of the future.

NITRATE OF SODA.

HALF-YEARLY REVIEW.

MR. THOMAS AIKMAN, JUN., says that the six months' apparent comsumption and export, from direct imports to United Kingdom ports, reach about 89,000 tons, against 99,000, 77,000, 82,000, 81,000, and 85,000 tons in the same six months in 1898 to 1894. As, however, about 9,000 tons were exported last year, chiefly to New York, and this year, in addition to consumption from direct imports, over 5,000 tons were drawn coastwise from Continental ports owing to the late arrivals in the United Kingdom, the real home consumption for the six months has doubtless fully equalled that of last year. The stocks at date are about 10,000 tons, against 10,000, 16,000, 21,000, 19,000, and 6,000 tons respectively at 30th June, 1898 to 1894. From Continental ports the deliveries during the six months have reached about 755,000 tons, against 670,000, 634,000, 633,000, 559,000, and 543,000 tons in 1898 to 1894, while stocks are about 35,000 tons, against 37,000, 100,000, 107,000, 60,000, and 18,000 tons at date in same years. Germany, which last year showed a falling off in deliveries of 10 per cent. on those of 1897, this year is about 25 per cent. ahead of last year, while France and Belgium, which increased 20 per cent. last year, only maintain this position. The delayed arrivals and the almost complete exhaustion of spot supplies in some ports on several occasions during the height of the consuming season interfered with the earlier consumption, but increased deliveries, April to June, have balanced this falling off. The six months' consumption in the United States and California has been about 65,000 tons, as compared with 70,000, 50,000, 60,000, 55,000, and 45,000 during same period in 1898 to 1894. The visible supply, stock and afloat, is about 35,000 tons, against 40,000 tons at date in the last two years. Other parts of the world have absorbed about 7,000 tons in direct imports during same period, as against 8,000 tons last year. Stocks in the interior of the Continent are understood to be on nearly as small a scale as at date last year. The consumption thoughout the world during the period 1st July to 30th June may be therefore estimated for 1898-99 at 1,260,000 tons, with an average price of 7s. 10d.; for 1897-98 at 1,175,000 tons, with 7s. 4½d.; for 1896-97 at 1,060,000 tons, with 7s. 10d.; for 1895-96 at 1,100,000 tons, with 7s. 10d.; for 1894-95 at 1,040,000 tons, with 8s. 4½d.; for 1893-94 at 975,000 tons, 9s. 7d.; for 1892-93 at 840,000 tons, with 9s. 6d.; for 1891-92 at 870,000 tons, with 8s. 10½d.; for 1890-91 at 945,000 tons, with 8s. 7d.; for 1889-90 at 930,000 tons, with 8s. 4d.; for 1888-89 at 730,000 tons, with 9s. 10d.; for 1887-88 at 670,000 tons, with 9s. 4d.; for 1886-87 at 510,000 tons, with 9s 9d.; for 1885-86 at 440,000 tons, with 10s. 6d.; for 1884-85 at 490,000 tons, with 9s. 9d.; for 1883-84 at 530,000 tons, with 10s.; for 1882-83 at 430,000 tons, 12s. 3d.; for 1881-82 at 350,000 tons, with 13s. 9d.; for 1880-81 at 250,000 tons, with 14s 6d.; for 1879-80 at 170,000 tons, with 16s. 3d.; for 1878-79 at 280,000 tons, with an average price of 13s. 6d. per cwt. The visible supply for Europe consists of about 45,000 tons stocks and 290,000 tons afloat, against 47,000 and 165,000 tons at date last year, 116,000 and 168,000 tons in 1897, and 127,000 and 255,000 tons at date in 1896. The deliveries, July to December, reached last year 270,000 tons, against 270,000 tons in 1897, and in 1896, 232,000 tons. The shipments, January to June, have been about 495,000 tons to Europe and 65,000 tons to United States, &c., against 365,000 and 75,000 in 1898, 310,000 and 55,000 in 1897, and 435,000 and 50,000 tons in 1896 during same period. The production during the first six months is approximately 640,000 tons, against 610,000, 500,000, and 650,000 tons respectively during same period in 1898, 1897, and 1896. Stocks in Chili are estimated to be less than those at date last year by nearly 100,000 tons. The opening price in January was about 7s. 6d. per cwt., and to-day's spot value is about the same. Throughout the spring months, owing to open weather and active delivery of cargoes as arriving, during several periods of easterly wind when ships were delayed, values were forced to over 9s 3d. per cwt. through absence of any reserve stocks in warehouse, and the equivalent of over 8s. was maintained for some time. The duty remains unchanged at about 2s. 4d. per quintal, but a further reduction of 1½d. per quintal in railway freight to the producers still served by the Nitrate Railway Company has been promised from January next. The efforts to arrive by themselves at an equitable assessment of the proportions of the whole justly appertaining to each producer or producing company on which to regulate production were again fruitless through personal jealousies and alleged unfair taxing of the respective merits. Until some disinterested outside influence can be called in a satisfactory settlement is unlikely to be arrived at among themselves.

PERSONAL.—*Dr. Edward Schunck.*—Professor Wilkins, in presenting Dr. Schunck to the Victoria University at Owen's College for the degree of Doctor of Science, said: "In the first volume of the 'Proceedings of the Chemical Society of London,' published fifty-seven years ago, there is a paper beginning with the words, 'Our knowledge concerning that department of organic chemistry which embraces the colouring matters and other principles allied to them is of the most imperfect kind.' The paper was read by Mr. Edward Schunck, of Manchester, and the history of his life may be given in brief by saying that, thanks mainly to him, these words are no longer true. That the chemistry of the organic colouring matters is no longer obscure—though some here might desire to correct me if I said that it is simple—is due largely, perhaps I should say mainly, to a long and masterly series of researches by Dr. Schunck. They have dealt with almost every aspect of the problem, and it would be idle to attempt to appraise them. But I may refer especially to the one from which I have quoted on the colouring matter of lichens; to his investigations of chlorophyll; to the examination of the colouring matter of madder, which led to the synthetic production of alizarin, and to similar researches on Indigo-blue. It is but fitting that such a man should find his place among those most honoured by the University whose seat is in Manchester, where for more than half a century he has carried on his epoch-making work."—The Albert Medal of the Society of Arts for the present year has been awarded by the President and Council to *Sir William Crookes, F.R.S.*, "for his extensive and laborious researches in chemistry and in physics, researches which have in many instances developed into useful and practical applications in the arts and manufactures."

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Iron or Steel Oil, etc., Drums. W. F. and R. Walker and J. T. Freestone. 12,716. June 19.

Improvements in Automatic Oil Pumps. C. W. Manzel. 12,758. June 19.

An Improved Manufacture of Filtering Material. G. H. Abbott. 12,793. June 19.

An Improved Method and Apparatus for the Production of Alcohol. A. J. Boult. 12,819. June 20.

Obtaining Metals from their Fused Ores and Salts by Electrical Action. J. Baxeres de Alzugaray. 12,829. June 20.

Obtaining Oxide from Ores and the like. J. Baxeres de Alzugaray. 12,830. June 20.

Manufacturing Metallic Chlorides. J. Baxeres de Alzugaray. 12,831. June 20.

Improved Filling for Evaporating, Concentrating, and Condensing Towers and similar Apparatus. L. O. Boeing. 12,841. June 20.

Manufacture of Cement. W. Borgolte. 12,871. June 20.

Process and Apparatus for the Manufacture of Stannic Acid (Oxide of Tin). H. Jaeger. 12,910. June 21.

Preparation of Perfumes. E. Miran and F. Schwarz. 12,942. June 21.

Scouring and Bleaching Vegetable Fibres and Yarn and Woven Fabrics made from such Fibres. J. Pullman and E. E. Pullman. 12,946. June 21.

Vessels for Boiling, Concentrating, or Heating Acids, etc. J. C. Ody. 12,978. June 22.

Production of Acetic Acid from Acetates of Lime and Soda or from other Substances containing Acetic Acid. W. H. Bowers. 13,043. June 23.

Improvements in Apparatus for Electrolysis. P. Schoop. 13,074. June 23.

An Improved Cleansing Composition for Linen and the like. G. A. F. Krumm. 13,111. June 24.

Artificial Fuel. E. Wright. 13,155. June 24.

Aromatic Thio-derivatives Adapted for Dyeing Cotton directly Black. H. H. Vidal. 13,165. June 24.

Manufacture of Smokeless Powder. E. H. Durnford and G. H. Wadsworth. 13,171. June 24.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in and connected with the Fermentation and Manufacture of Malt Wines. Dr. A. Munsche 267, Allee, Altona, Germany. Eng. Pat. 16,896. Aug. 4, 1898.

The six essential methods of procedure in the manufacture of malt wines are fully described in this specification. The first is that of cultivating the barms, viz., pure culture wine barms, which develop the "fruit ethers," and dextrine fermenting barm. The preparation of these barms is carefully described in detail. The preparation of the malt-wort, the inversion of the cane sugar solution, which has to be added, and the flavouring and fermentation of the wort are also detailed. Lastly, the storage is dealt with, a warm and a low temperature being used before barreling. For particulars, the specification should be consulted.

An Improved Valve for Vessels containing Carbonic Acid and other Gases under Pressure. J. Qurin, 20, Deutscher Ring, Cologne, Germany. Eng. Pat. 14,689. July 4, 1898.

In order to avoid any loosening of the valve during transit, by vibration or concussion, a valve of special construction is employed, which also enables the operation of opening and closing to be performed with great nicety. The latter end is attained by a hollow bolt keyed to the hand wheel, on the outside of which is a screw thread engaging with the prolonged wall of the stuffing box, while inside a much finer thread operates the valve spindle or piston. Owing to the varying pitch of the threads, an appreciable rotation of the hollow bolt only produces an almost imperceptible movement of the valve on its seating. The hollow bolt is kept from turning during transit by a screw-collar, which in turn is wedged by a lock-nut. There are four figures.

Improvements in Chambers for Drying Slurry. G. L. Anderson, London Portland Cement Co., Ltd., Northfleet, Kent. Eng. Pat. 14,462. June 30, 1898.

The improvements have reference to a modification of the Johnson kiln, and embody a short arch, extending only over the front of the kiln, and a horizontal roof of iron plates, which form additional drying surface. The under sides of the plates are protected from the direct action of the gases by a horizontal diaphragm or baffle. The drying chamber may be heated by the waste heat from the cement kiln. There are eight figures in all.

A Special Heating Apparatus, with Regulated Draught, for Drying Gypsum and certain other Products at a Regulated Temperature. H. K. Bamber, Westminster Chambers, 9, Victoria-street, London, Eng. Pat. 5,038. March 1, 1898.

In order to heat the gypsum at a uniform temperature of about 300 to 350° F., a cylindrical oven, provided with an oil jacket, containing heavy petroleum having a boiling point of 600° F. is used. This jacket does not cover the ends, one of which acts as a door, through the centre of which the hot air from the furnace beneath is introduced. There is an outlet pipe near the top of the other end, from which steam can be seen escaping, the end of the drying operation being judged by the absence of any condensed moisture. The gypsum may be packed in the oven or pushed in on latticed waggons, as may be most convenient. There are three figures.

Improvements in and Relating to Means for Producing Ozone. E. Böhm, 5, Boxworth Grove, Richmond-road, Barnsbury, London, N. Eng. Pat. 14,450. June 30, 1898.

Glass beads are coated internally with a metallic lining and strung on a metallic conducting-rod. Layers of these are placed one upon the other in an insulated box, the rods being connected alternately to the opposite poles of an induction coil. The air to be ozonised is passed through the box, finding its way through the interstices between the glass beads. If desired, a sheet of metal may be placed between the layers of beads, in which case the sheets are all connected to the negative pole and the bead-conductors to the positive pole. Any desired number of the superposed layers of beads may be placed side by side in the insulated box. There are three figures.

LUMIERE'S "HYDRAMINE" DEVELOPER.

HYDRAMINE is a salt derived from hydroquinone and para-phenylene diamine, which possesses remarkable developing qualities. The principal properties of this developer are the following:—(1) Its energetic action with a small quantity in a weak solution permits of employing only a small quantity of the salt to make a concentrated developing solution capable of developing until the liquid is entirely exhausted; (2) Thanks to the special basic action, only a small quantity of caustic alkali (lithia) is necessary; (3) The alkaline solution alters little, remains colourless, and keeps well even when a smaller quantity of sulphite (than is required for other developers) is used; (4) The solution does not stain the fingers; (5) Lastly, its great sensitiveness to alkaline bromides permits of easily correcting over-exposures.

INSTRUCTIONS FOR DEVELOPMENT.

The Normal developer is made up as follows:—

Water	1000	grammes	or say 10	ozs.
Hydramine	5	,,	,, 25	grains
Sulphite of Soda, crystal	15	,,	,, 75	,,
Caustic Lithia	3	,,	,, 15	,,

Caustic lithia should be used exclusively for making the solution, as neither alkaline carbonates nor any other caustic alkalies or their successors give as good results as lithia with hydramine.

Dissolve the lithia and sulphite first in water, then add hydramine; shake the mixture until all is dissolved. Do not take any notice of the slight flocks which are formed when the solution is made with ordinary water, as these flocks do not affect development.

In a case of over-exposure the defect can be corrected in the same way as pyro, by adding little by little during development bromide of potassium (10%).

The effect of bromide is noticeable when the bromide solution is added in the proportion of 1 part to 100 parts of developer.

Under-exposure is corrected by adding, drop by drop, to the developer during development, caustic lithia solution (1%). Messrs. Fuerst Bros., 17, Philpot-lane, E.C., are the United Kingdom agents.

MATCH WORKS AT IRLAM.—Building operations were commenced last week for new match works near Irlam station at Cadishead. Plant will be put down sufficient for an output of one million matches per week. Besides match-making there will be match-printing, which is a patent process of the owner's own invention. The works are expected to be completed by the end of the year. Employment will be found for between one hundred and two hundred workpeople.

PURIFICATION OF CAUSTIC LYES BY DIALYSIS.

ALTHOUGH dialysis affords convenient means whereby the separation of crystallisable from uncrystallisable bodies can be effected, it is not practically suited to the separation of crystalloids from one another, because the diffusion constants of crystalloids, which have been as yet determined, and are, in general, found to be considerably greater than those of colloids, do not usually differ from one another in a ratio greater than 2 : 1.

A closer investigation, however, of the diffusion of a mixture of caustic potash with chlorides, sulphates, sulphides, has recently been made in the laboratories of the Chemische Fabrik, Griesheim, which has revealed facts of sufficient importance to warrant this improved method of dialysis being patented by the company. It was found, for example, that the velocity ratio of diffusion of alkali and chloride which in dilute solutions is about 2 : 1 very greatly increases with increased concentration, becoming about 16 : 1 in highly concentrated solutions if care be taken (say by stirring, rapid circulation, or the like) to prevent the concentration of the lye falling below a certain limit. As to the lye obtained by the diffusion the result is satisfactory even if the strength of it comes up to 42° Beaumé.

The following examples serve to illustrate the foregoing :—By dialysis of a dilute potash lye containing 45·4 gr. KOH and 0·7 gr. KCl. per litre, a potash lye was obtained containing 12·7 gr. KOH and 0·09 gr. KCl. per litre. On the other hand, by dialysis of a crude coloured potash lye, containing iron, of 50° Beaumé, containing 750 gr. KOH and 12 gr. KCl per litre, in which the concentration fell to 45° Beaumé, a clear potash lye was obtained (free from iron), containing 365 gr. KOH and 0·4 gr. KCl per litre.

Whilst therefore, in the comparatively dilute solution of 45 gr. per litre, described in Example 1, the percentage contents dropped only from 100 : 1·54 to 100 : 0·71, in approximate agreement with the known laws of diffusion, it is shown in the second case that with high concentrations such as 750 gr. per litre, the contents-ratio unexpectedly drops from 100 : 1 6c to 100 : 0·11.

The behaviour of concentrated solutions of sodium hydroxide is similar.

By evaporation of the dialysed lyes, and subsequent renewed dialysis, the percentage of secondary constituents was reduced to imperceptible traces.

But even where dialysis is performed but once, the impurities in the osmotic lye may readily be reduced to a minimum, provided that care is taken, that, in the dialysing chamber, the water is, at all stages of diffusion, confronted with a concentrated lye, and that, at the partition between the water and the lye, a dilute lye does not form from time to time, as that would tend to mix the water again by osmose. This end can be attained, for example, by stirring the caustic potash lye, or by causing a rapid circulation, or movement, thereof.

The following tables show the results attained by this method :—

(*a*) A crude caustic potash lye of 50° Beaumé was taken, containing per litre 750 gr. KOH and 11 gr. KCl. (Ratio 100 KOH : 1·47 KCl.)

Sp. gravity of KOH used : 50° Beaumé		Concentration of lyes after test, *viz.* :—		Ratio of KOH and KCl in diffused lyes.
		The KOH used.	The KOH after diffusion.	
100 : 1·47	I.	47 2	7·0	100 KOH : ·025 KCl
	II.	46 5	8 7	100 ,, : ·034 ,,
	III.	44 6	12·5	100 ,, : ·041 ,,
	IV.	41 9	18 2	100 ,, : ·048 ,,
	V.	4c·0	30 5	100 ,, : ·044 ,,

Again, in a second trial, a crude caustic soda lye at 49° Beaumé was taken, containing, per litre, 707 grammes of NaOH ; 5·1 grammes of Na_2S ; 12·2 grammes of NaCl ; 1·3 grammes of Na_2SO_4. The concentration of this lye, which, in course of the experiment was repeatedly renewed, dropped to 46·5° Beaumé, when dialysis was applied, and there was obtained a diffused lye of 19° Beaumé, containing per litre, 155, NaOH ; ·016 Na_2S ; ·042 NaCl ; and traces of Na_2SO_4. Ratio per 100 NaOH : ·01 Na_2S ; ·0·27 NaCl ; and ·000 Na_2SO_4.

Diffusion without a membrane leads to the same results in regard to quality, while quantitatively the results of such diffusion are not quite so favourable.

Diffusion on this system may be conducted by either of the following methods :—

(1.) Sheets (or layers), of crude lye and water, of a large horizontal area, are carefully superposed, and the diffused lye is, some time afterwards, drawn off, nearly down to the surface of the crude lye. The layer of diffused lye in immediate contact with the crude lye is strongest, though its degree of purity is lowest. It is therefore expedient to take off such lye a few millimetres above the line of contact. Or (2) operations may be conducted in a system of grooves or channels, by causing water to flow slowly, but continually, over the crude lye, and taking off the diffused lye through a horizontal slot—the level of which is adjustable—at a suitable height above the plane of contact of the two layers.

Inasmuch as the crude lye becomes more dilute towards its upper surface, and as the diluted part thereof collects at the top, if it be desired that the operations should be perfectly continuous, an alternative course may be adopted.

(3.) The crude lye also may be caused to flow, but in the direction opposite to that of the water, the level of the contact line being kept unchanged.

The following table shows some results obtained with still lyes or a flowing current :—

	Neither the water nor the crude lye flowing.				Water flowing but crude lye not flowing.			
	Crude lye.	Diffus'd lye.	Crude lye.	Diffus'd lye.	Crude lye.	Diffus'd lye.	Crude lye.	Diffus'd lye.
Per cent.								
KOH	76·2	16·6	74·4	19·2	75·4	10·2	75·4	12·2
KCl	1·25	·03	1·30	·036	1·1	·016	1·1	·022
Ratios.								
KOH	100	100	100	100	100	100	100	100
KCl	1·64	·18	1·75	·19	1·46	·15	1·46	·18

In the opinion of the patentees, since the dialysis of caustic alkalies proceeds with extraordinary rapidity, and the evaporation of the water added during the process costs but little, the process affords a new and practical process for the preparation, on a large scale, and in a simple manner, of caustic alkalies in a state of great purity, a result which has hitherto been only obtained by crystallisation from alcohol, which has considerably increased the cost of the product.

FRENCH CHEMICAL AND FERTILISER TRADE.

BORDEAUX AND CHERBOURG DISTRICTS.

BORDEAUX.

BRITISH trade with Bordeaux during 1898 appears to have been neither better nor worse than in the previous year, excepting, of course, the evil far-reaching effects of the South Wales coal strike. We think that of all the dangers which menace our trade that of strikes is the worst, and, could those who cause them realise the extent of the evil they create, they would rather bear enormous loss and inconvenience than be the cause of another.

EXPORTS.—The following is an abstract of the principal items of chemical interest exported, which also shows the amounts sent to Great Britain :—

	Total Quantities Exported.		Quantities Exported to the United Kingdom.	
	1897.	1898.	1897.	1898.
Pure oils .....Cwts.	73,009	62,204	23,783	24,079
Gums, foreign ..... ,,	36,497	42,053	15,366	21,983
Resin, &c. ..... ,,	119,474	101,975	6,233	7,148
Resinous oils ..... ,,	11,805	10,992	10,119	10,388
Turpentine ..... ,,	15,538	12,589	635	712
India-rubber (raw) ..... ,,	485	676	324	284
Iron ore .....Tons	1,684	3,068	1,536	2,903
Chemicals .....Cwts.	229,727	229,051	119,118	129,920
Talc (powdered) ..... ,,	70,666	68,737	36,750	26,510
Manganese ore .....Tons	12,730	6,530	530	6,030

Under the heading of pure oils were olive oil, 6,315 cwts.; castor oil, 4,733 cwts; and ground-nut oil, 12,760 cwts.

The principal chemical products exported were chestnut and other vegetable tannin extracts, 69,545 cwts.; oxide of zinc, 2,508 cwts.; glycerine, 1,996 cwts.; raw tartar, 13,062 cwts.; tartar crystals, 3,526 cwts.; and cream of tartar, 32,303 cwts.

IMPORTS.—There was a substantial increase in the importation of *chemical products*, the principal items being bicarbonate of soda, 2,768 cwts.; salammoniac, 7,751 cwts.; superphosphate of lime, 21,253 cwt.; chemical manure, 77,867 cwts.; products distilled from coal tar, 237,582 cwts.; and sulphate of copper, 266,088 cwts. The total amount of sulphate of copper imported to Bordeaux was 273,458 cwts., the balance coming from Sweden, 220 cwts; Spain, 7,046 cwts; and Algiers, 104 cwts. Of *ink*, out of a total importation of 46 cwts., the amount from Great Britain was 40 cwts. There were 26 cwts. of transparent *soap* and 37 cwts. of other toilet soap imported, as well as 285 cwts. of starch out of a total importation of 1,172 cwts. All the *blacking* imported, amounting to 86 cwts., came from Great Britain.

The abstract of imports corresponding with that given for exports is as follows:—

	Total Quantities Imported from Abroad.		Quantities Imported from Great Britain.	
	1897.	1898.	1897.	1898.
Animal manure .....Cwts.	1,259	3,215	333	1,763
India-rubber (raw) ..... ,,	3,051	4,135	1,535	1,358
Oilcake..... ,,	702	1,435	404	1,202
Coal and coke .....Tons	512,930	484,938	512,450	469,575
Coal-tar .....Cwts.	98,169	46,550	98,165	46,544
Oil and petroleum residue ,,	3,424	1,189	1,935	378
Paraffin..... ,,	5,090	7,608	2,096	1,711
Iron and steel ..... ,,	170,712	200,784	118,308	116,874
Copper..... ,,	34,213	19,253	1,653	1,187
Tin ..... ,,	3,702	3,963	2,008	2,301
Chemicals ..... ,,	817,245	1,179,329	570,321	625,225
Indigo ..... ,,	747	412	21	112
Varnish..... ,,	1,913	1,119	1,361	1,092
Paint and colours ..... ,,	811	918	683	834
Soap, toilet ..... ,,	52	63	43	63
,, common..... ,,	2,025	810	1,605	707

The importation of *sulphate of copper* (almost entirely of British make) was 13,556 tons, a trifle less than in 1897. The season, much aided by the weather, showed comparatively little disease among the vines, and in many cases one treatment of the vines was saved. Thus some stocks remained over for 1899, and this easily explains the downward tendency of prices towards the end of last season. Unfortunately a dropping of prices seems to take place every year at the end of the season, and is always explained by one influence or another. This, however, disheartens many buyers, and it may be anticipated that the sales for 1899 will not be so easy for forward deliveries, and will be much restricted, mostly taking place at the moment of consumption. The trade being obliged to give very long credit to vineyard owners, and the profits being small, could only reap a scanty benefit last year, when the general tendency of the market was a falling one. Thanks to the influence of the weather, the much-dreaded malady, "black rot," scarcely made its appearance last season, and did but little damage to the vines. Thus experiments with mercurial preparations for the destruction of this malady will have to be continued next season, their effect not having so far been proved. As a rule it is believed that sulphate of copper after all is a certain check on the spread of "black rot."

Creosote is very largely imported from Great Britain, and is principally used for pickling railway sleepers. It has, however, been proved useful for agricultural purposes, such as a disinfectant and insect destroyer, and a wood preserver where formerly coal tar was used. It is rapidly gaining ground, being cheaper and more efficacious than coal tar. The importation in 1898 was 12,926 tons.

Brimstone arrives at Bordeaux in bulk cargoes from Sicily about 3,500 to 4,000 tons annually, and is sublimated or ground here and sold as a preventive and cure of the disease of the vines known as "oidium." The largest factories are, however, in the south (Marseilles, Cette, La Nouvelle, etc.), which is astonishing as there is such a large consumption in this district. The factories here are small and manufacture about one-fifth of the local requirements.

The total output of *vine manure* from the waste products of the yards was in 1898, 5,295 tons, valued at about £19,000. It is chiefly used in Bas-Languedoc. In general minerals, 6,347 cwts. of kaolin, 376 cwts. of chalk, 973 cwts. of sand, 200 cwts. of flints, and 3,260 cwts. of other substances were imported for china and porcelain factories.

Sales of *turpentine* were easy in the Bordeaux market in 1898, notwithstanding the huge supplies on the markets at Mont de Marsan, Dax, and Bordeaux. The price of turpentine during the second quarter of the year was 72 fr. (£2. 17s 7d.), from July to September 67 fr. (£2. 13s. 7d.), from October to December 73 fr. (£2. 18s. 5d.), and in the first quarter of 1899 81 fr. (£3. 4s. 9d.) per 2 cwts., f.o b., subject to a discount of 3½ per cent.

The short stock of *resin* and *pitch* remaining over from the previous year stimulated buyers who procured all they required and bought up the stocks at high prices. The production in 1898 having been a good third more than in the previous year, it is not surprising that a quarter of the production remains in stock at Bordeaux.

The various *salt* mines in the district of Bayonne have yielded during the past year considerable quantities which can be estimated at about 600,000 cwts., but on account of the abundant supply of marsh salt on the west coast of France, the output here has been considerably above the demand. The French Government revenue have derived, during the year 1897, at this port from salt consumption tax, which is about 400 per cent., the sum of £32,000., or an increase of £3,500. on the previous year.

The making of *ferro-chrome* is one of the specialities of the Boucau iron foundries. The article is exported in small barrels, and it is stated that about 40 to 50 tons are annually shipped to Great Britain, whilst the demand from Germany amounts to about 500 tons. It is further stated that a ton of 1,000 kilos. is worth about £40.

Calcium Carbide.—The acetylene light has been adopted by several establishments. The carbide employed is mostly imported from America and Switzerland, and sold at about £1. 4s. 0d. the cwt. There are already carbide factories in course of construction in the neighbourhood of Lourdes (Hautes Pyrenées), which in the course of time will effect a considerable reduction in the price.

CHERBOURG.

The Principal imports from Great Britain during the year 1898 were as follows:—Coals, 37,840 tons; artificial manures, 4,742 tons.

Twelve thousand three hundred and sixty four tons less of coals were imported from the United Kingdom to Cherbourg during the year 1898. This falling-off is attributable solely to the coal strike and mild winter, and is, therefore, merely transitory. The *freights* for superphosphates from London were 5s. 9d., 6s. 6d., and 7s., Hull, 7s. 9d., and Plymouth 5s.

A fair increase was shown by *phosphates* and *guano*, the total amount having risen from 3,916 tons in 1897 to 4,742 tons in 1898, due to the rapidly spreading recognition of the superiority over all foreign artificial manures.

In regard to *fertilizers* it is pointed out that there is still a very large and continually increasing market for artificial manures, and if British firms wish to maintain and improve their position in the market and their prices, it is high time that they should bestir themselves and send out qualified representatives with a thorough command of the French language, in order to ascertain the requirements and watch the fluctuations of the market, as a French Syndicate is about to be established at Honfleur, which will attempt to close French markets to them permanently.

Again at St. Malo, manures have gone back, although at certain small ports on the coast some small sailing vessels have discharged cargoes for local use. The district Consul reiterates his opinion to manufacturers that there is a trade possible, but active agents are required. The simple insertion of an advertisement in a local newspaper is the extent, apparently, of the ordinary agent's endeavours.

At Granville, 3,306 tons of mineral, iron and copper pyrites have been imported during the year from Portugal (in British bottoms) for the manufacture of artificial manure and sulphuric acid; 500 tons of *Sulphate of Ammonia* have also been imported for the same purpose and 372 tons of crushed bones, these last come chiefly from Havre, in French bottoms.

Messrs. Dior Fréres have a large artificial manure factory at Granville and turn out about 45,000 tons per annum. The manures manufactured are chemical manures, which vary in price from 5 fr. to 25 fr. per 100 kilos.

A large addition to this factory is now in progress with a view of supplying the potato culture of the Manche, which is steadily increasing; over 60,000 tons will probably be produced this year.

CHANGE OF ADDRESS.—Messrs. C. A. & H. Nichols have removed from 21, Mincing Lane, to more commodious premises at Peninsular House, Monument Street, E.C., where all communications should be addressed.

NITRATE STATISTICS.—The Permanent Nitrate Committee in their statistical circular for July give the following statement of the stocks of nitrate of soda:—(1) Total exports to Europe, June, 1,396,000 quintals, loading for Europe 1st July, 1,778,000 quintals; (2) Imports, Europe, June, 51,200 tons; (3) Deliveries, Europe, June, 67,920 tons; (4) Visible supply, Europe, 1st July—stocks and afloat.—335,140 tons.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

ALLEGED NUISANCE.

A SERIES of summonses have been taken out by the Health Committee of the Manchester Corporation against chemical manufacturers in the districts surrounding Manchester. They are for offences alleged to have been committed against section 114 of the Public Health Act of 1875.

The first of the series came on for hearing on Friday last week before Mr. Headlam, at the Manchester City Police Court. This was by the Manchester Corporation against Messrs. Hardman, Holden, and Co., chemical manufacturers, of Miles Platting.

Mr. Rhodes, barrister, represented the Corporation of Manchester; and Mr. Sutton, barrister, appeared on behalf of the firm prosecuted.

Mr. Rhodes, in his opening statement, said that a certificate had been signed by the inhabitants in that part and given to the Sanitary Committee of the Manchester Corporation. A resolution was passed by them for proceedings to be taken. As Mr. Headlam knew, it would be only fair to say that complaints from this district had been very great, and the difficulty was to localise the place in which the smell arose. Other summonses would be heard later on from the same locality. The works of the defendants in this case were situated in Miles Platting, bounded by Varley-street, James-street, and Canal-street. The very extensive works of Messrs. Hardman and Holden carried on various processes. These included the distillation of coal tar, the manufacture of sulphate of ammonia from gas liquor, the manufacture of sulphuric acid, the distillation of benzol, and the manufacture of pyridine. It was very possible for effluvia to be given off in the manufacture of the chemicals named, which were injurious to the health of the people who inhabited the district in which it was carried on. Up to a year or 18 months ago there was a drain placed from the benzol department, which was in the centre of the works, to the Manchester Oxide Company's works, into Shooter's Brook. About 12 or 18 months ago, however, this was coupled up with the main drainage system of Manchester, and was taken across an open piece of land in a direct line to Ridgway-street. Complaints had been rife from the locality near the works. There had been no complaints from Ridgway-street or from that direction until the drains of the two works were coupled up with the main sewer. Complaints were very bitter indeed. A long list of them from the street immediately adjacent complained of the strong effluvia that came into the houses from the grids. Complaints from this district had been received quite recently. Complaints had been made so far back as 1891, and proceedings were then taken, and Messrs. Hardman and Holden at that time undertook to put their works into such a state that there should be no cause for complaints. He would not say that this was not done. After three or four years complaints again began to be made to members of the Sanitary Committee of the Corporation about the condition of the district. A Sanitary Association was formed in the district, and they took notes. Early in last year complaints came into the Corporation, both written and verbal, that the smells had got to such a pass that action should be taken. Towards the end of the year, unfortunately, there was an accident in the sewer, a little farther down than the works, and since that time it had been worse than ever. It seemed to be worse during the winter months and the early part of the year. The effluvia seemed to escape much more freely during these times. Night time and early morning was when the effluvia were given off to the greatest extent. An inspector was put on to take notes. He would be called. The smells seemed to be given off for a time, and then suddenly cease for an hour or two and come on again. In justice to the defendants it was only fair to state that a memorial had been presented, signed by a considerable number of the inhabitants in the district, in which it was stated that the inhabitants had not suffered in health from any alleged noxious fumes from the works. They consider that to prosecute the firm in question for creating poisonous fumes would be an arbitrary proceeding, and calculated to bring injury to the prosperity of the neighbourhood. The gases appeared to have a peculiar effect on the stone and woodwork in the neighbourhood, turning them blue.

AMUSING EVIDENCE.

The Rev. S. Nugent Perry, rector of St. Mark's Church, Miles Platting, said that he complained of smells in his district. There was always an unbearable smell in his house. It had a peculiar influence over the members of his household. It made him feel very sick, and prevented him from doing any thinking work. He was the vice-chairman of the Sanitary Association which had been formed in the district. He went to live in the house in 1893, and the smell was noticed about a week after they got into the house. Witness said that he had made experiments with lead paper by holding it over the sewer, and this, after a brief exposure, was very strongly discoloured. This proved the presence of sulphuretted gas. He admitted that these experiments had been made at some distance away from the defendants' works, but stated that he had also made tests in the neighbourhood of the works with the same results. The fumes were most noticeable at his residence when the wind came from the direction of Messrs. Hardman and Holden's works. Witness had had an interview (in 1896) with one of the members of the defendants' firm, who informed him that they had already spent £600. on the plant with a view to remedying the cause of the complaint. The member of the firm did not deny that noxious fumes were emitted, but said he was of opinion that the rectory was too near the works. Cross-examined by Mr. Sutton, witness admitted that he had been the moving spirit in the matter, and that he had been going round persuading people that there were noxious fumes, etc., because he knew it to be true. Mr. Sutton asked witness if it were not a curious fact that when he had gone round with other people no noxious fumes could be discovered. This witness denied, and brought forward as an exception an occasion on which Mr. William Thomson and other gentlemen went along Vickers-street and other streets, when they all noticed the smell. This was on January 3rd of this year, and it was not the only occasion.

In answer to further questions, the witness said that he and Mr. Cooper went to James-street at 9-30 on December 28th, and then discovered a very bad smell emanating from the neighbourhood of the works, and they lost a lead testing paper.

Mr. Sutton: You went with a lead testing paper and lost it.—Witness: Yes, it is a very funny incident. Mr. Cooper put his hand inside the gate of a works with a bit of lead paper in it, when somebody made an attempt to grab it, and covered his hand with tar and spoilt his coat. (Laughter.)

Mr. Sutton: Did you not say that you would not be content until you had daisies growing there?

Witness: Nothing of the kind. The nearest approach to any such suggestion was when Mr. Craven said, "You are wasting your time. You cannot stop this smell." I made reply that if the smells could not be stopped the works could be moved. I do not want the works moved, but I understand that the smells could be stopped with proper care and attention.

Would you be satisfied if we proved that they were receiving proper attention and care?—No. I should not be satisfied until the poisonous fumes were stopped.

Yes, but if we proved that we were exercising proper care and attention?—It could not be proved if the smells came out.

Then the only way to escape them is to leave the neighbourhood.—I have a right to live there. My work is there. None of the manufacturers live there, that I know of.

Suppose the works go away, what are the workpeople going to do?—I cannot answer for that.

Did you live in Preston before you came here?—Yes.

In what part?—In the best part.

And you are not accustomed to anything but very fresh air?—No.

Re-examined by Mr. Rhodes, witness stated that a very small proportion of the inhabitants were employed in the chemical works.

John James Cooper, of 125, Holland Street, Miles Platting, stated that he was honorary secretary to the Newton District Sanitary Association. The fumes had been very bad since 1896. That was the time at which the Association was formed. They banded themselves together to see what they could do in the matter. He had lived in Holland Street seven and a half years. He was mostly in the district at night. The fumes created a stifling sensation in the throat. His wife and two of his children seemed to be affected by it. The other children did not suffer. Several times after breakfast they were seized with a sickly feeling, and were forced to vomit. On the 22nd of December he, along with Mr. Perry, noticed a strong smell as they were proceeding down James Street towards Vickers-street. Witness said he had made several tests which went to indicate that the fumes contained sulphuretted gas.

Cross-examined by Mr. Sutton, witness stated that as a result of the petition signed by the inhabitants of the district the Corporation had plugged up the manholes. Mr. Sutton submitted that on one or two occasions the test papers did not become discoloured until the plugs had been taken out of the manholes. Witness said that he had had serious cause for complaint since December, 1898. The unbearable stenches he complained about came in gusts, which were from five minutes to half an hour in duration.

The Rev. D. E. Walker, Curate of St. Mark's Church, Miles Platting, said that his house was about two minutes' walk from the defendants' works, and his complaint was that there were noxious fumes in the air, which caused a stifling sensation in the throat, and a severe headache. He had accompanied Mr. Perry on two occasions when he was making observations, both of which occurred in January of this year.

Mr. Wm. Thomson (chemist), stated that he had visited the district with Mr. Perry in February of last year, and noticed a tarry smell, which was a very great nuisance, and in his opinion was entirely unnecessary. In cross-examination he admitted that it was quite impossible to carry on a work like this without some smell arising.

The case was adjourned until Monday, July 24th, at 11 o'clock.

Selected Correspondence.

TREATING MANCHESTER GAS RESIDUALS.

(To the Editor of the Manchester City News.)

Sir,—I am glad to see that "A Ratepayer" has invited attention to this subject. The citizens ought to know something more than they do about the cost of the proposed undertaking. I have access to many papers, amongst which are various estimates made from time to time by Mr. G E. Stevenson, the gas engineer of the Rochdale-road Works, but I will now deal more particularly with the one dated February 6, 1896, and with your permission give a comparative statement. When the inquiry was first held, it was made an absolute condition by the Commissioner from the Local Government Board that, before the borrowing powers were granted, the Corporation must prove a profit, that is to say, that no burden on the rates must result. They further strongly deprecated the idea of municipal authorities entering into manufacturing at all. How far this is being carried out we shall see. Should the pipes now passing tar be used for this water, an additional expenditure will be created in the amount required for carting the tar, which, roughly speaking, will be £1,000, or 1s. per ton on 20,000 tons.

Before accepting Mr. Stevenson's revised estimate of cost, let us just glance for one moment at the price of acid—namely, 14s. 3d. per ton. Now, Leicester (the town on which the Manchester deputation waited) give considerably more than the price in my estimate. The cost for labour is out of all proportion to the actual figures, Leicester again figuring at 13s. 3d. per ton, as against 4s 3d. in Mr. Stevenson's estimate

COMPARATIVE STATEMENT.

Mr. Stevenson's Estimate. £ s. d.		Actual cost. £ s. d.
0 14 3	Acid	0 18 0
0 1 3	Lime	0 2 9
0 1 10	Breeze (fuel)	0 4 9
0 4 3	Wages	0 10 11
0 2 3	Repairs	0 2 8
0 1 0	Gas water	0 3 0
0 3 3	Bags	0 3 3
0 6 3	Net sinking fund	0 6 3
0 8 9	Depreciation	0 9 10
0 0 10	Rates, taxes, imperial and local	0 2 8
0 0 2	Insurance	0 0 2
0 7 6	Carriage on sulphate	0 7 6
0 6 4	Discount and brokerage	0 6 4
£2 7 11		£3 18 1

Add to this the additional cartage account as before mentioned, and your readers may then judge for themselves. How is it, also, that nothing is put down to rent (or interest on capital expended on purchase of land), which said land, we contend, is not big enough for the quantity as set forth in the estimate for the manufacture of sulphate of ammonia and sulphuric acid. The Leicester Corporation with its management is looked upon by all gas managers as a leading light in this class of manufacture, and all returns made by them are taken as reliable. I trust that my fellow ratepayers will see the advisability of protesting against this new departure with all the force at their command, even going so far as to demand a fresh Government inquiry.

Observer.

[See also *C.T.J.*, 630, p. 396.]

Gas Explosion in a Holder.—On Tuesday afternoon, a fatality occurred at Honley Gas Works, about four miles from Huddersfield. Six men were removing an old gasholder in order to substitute a telescopic one. The girders supporting the gasholder had been removed, and the men were engaged on the crown taking out rivets and sections. It is said that it is not customary to exhaust the gas when engaged in such operations, as it usually escapes harmlessly. On this occasion some air had got into the holder, and it is believed that a spark from a chisel ignited the mixed air and gas and caused the explosion, with deplorable results. There was no great report, but the men were hurled fifty feet in the air, and three of them—Thomas Carter, twenty-five years of age, unmarried, of Elland; John Makin, twenty-seven, married, of Elland; and Ben Pearson, thirty-seven, of Milnsbridge—were picked up dead. A fourth man, Joe Binns, twenty-seven, of Greetland, was unconscious, and died in an hour and a half. Ben Taylor, of Elland, was also injured, sustaining a crushed hip and a broken leg. The foreman had a narrow escape, having left work a few minutes previously. Very little injury was done to the works, the explosion taking an upward direction only.

MERSEY AND IRWELL JOINT COMMITTEE.

A MEETING of the Mersey and Irwell Joint Committee was held on Monday, at the offices, Mosley-street, Manchester, the chairman (Sir J. T. Hibbert) presiding. Mr. T. W. Killick presented a report of the Consulting Sub-committee. In accordance with the recommendation of the sub-committee a further extension of time for three months was granted to the Bolton Corporation and the Bury Rural District Council to enable these authorities to obtain the sanction of the Local Government Board to the borrowing of moneys to carry out a joint scheme for dealing with the sewage of Ainsworth and Breightmet. With regard to the Hyde Corporation, the order of the Court having expired, the sub committee drew attention to the position of the authority. The Corporation was proceeded against on four occasions—twice in 1895, in November, 1896, and in January, 1899, the penalties on each occasion being of small amount. In November, 1896, the Council was placed under an order of the Court, which order had been practically disregarded. The sub-committee therefore recommended that all proceedings under the Mersey and Irwell Joint Committee Act be at once withdrawn, that two months' notice be given under the Rivers Pollution Prevention Act, and that upon the expiration of such notice the clerk be instructed to take proceedings against the Corporation of Hyde under the last-mentioned Act.

The Chairman said this case was a very bad one.

The committee approved of the recommendation of the sub-committee.

The Sub-committee reported that Sir H. E. Roscoe had laid before them analyses of the effluent from the sewage works of Manchester and Salford, and it was recommended that a copy of the same be forwarded to each authority. In the case of Manchester the effluent was stated to be "Brown, turbid, containing brown suspended matter, and tarry smell. A bad effluent;" and in the case of Salford, the report was "Light brown, turbid, containing finely divided suspended matter. Neutral. Sewage smell. A bad effluent."

Mr. Wilson, the clerk, read a letter from the Acting Town Clerk of Salford, pointing to a difference between the report of Mr. F. Scudder, the officer of the Committee, and that of Mr. J. Carter Bell, the borough analyst, and to a resolution adopted by the River Irwell Conservancy Committee of the Salford Corporation to the effect that in view of the differences in the results shown by the analyses made by Mr. Scudder on behalf of the Mersey and Irwell Joint Committee, and by Mr. Carter Bell on behalf of the Salford Committee, the Joint Committee be requested to permit Mr. Scudder to forward his results to Mr. Bell immediately they were made, upon the understanding that Mr. Bell also forward his results to Mr. Scudder.

Mr. Alderman Jenkins said he had brought the matter before the Committee of the Salford Corporation on several occasions. The Salford authorities were desirous of giving the most accurate results, and it was thought that the proposed interchange would be beneficial. The Corporation were doing their very best and were spending large sums of money, but for a little time they could not help themselves, do what they would

Mr. Scudder said he had endeavoured for the past two years to bring Mr. Bell to his laboratory, so that the matter might be amicably discussed and dealt with, but he had not succeeded.

Mr. Killick thought no resolution need be passed upon the matter. It was merely an act of courtesy on the part of their chemist to Mr. Carter Bell.

A return was submitted of the effluents obtained from the treatment of the sewage of 33 authorities within the jurisdiction of the Mersey and Irwell Joint Committee. Of these, thirteen were described as good effluents, five as fair, eight as unsatisfactory, and seven as bad. The unsatisfactory effluents were obtained from the Marple and Altrincham Urban District Councils, the Barton Rural Council, the Westhoughton and Withington Urban District Councils, the Bucklow and Stockport Rural Councils, and the Leigh and Atherton Joint Sewerage Board. The Sub-committee recommended that the Clerk write to these authorities, drawing their attention to the matter. The samples described as "bad" were obtained from the Corporations of Manchester and Salford and the Urban District Councils of Knutsford, Tyldesley, Kearsley, Westhoughton (Marsh Brook), and Ashton-in-Makerfield. The samples from Manchester and Salford had already been dealt with, and the Sub-committee recommended that the Clerk be instructed to write to the several local authorities inquiring what steps they proposed to take to improve the treatment of the effluent.

The report of the Sub-committee was adopted.

Obituary.—It is with deep regret we have to announce that Mr. Hugh Wallace, J.P., of Messrs. Hugh Wallace and Co., Ltd., passed away suddenly on Thursday, at Dorset Hall, Merton, Surrey, in his 80th year. It was only on Saturday last all the employés attended his house for luncheon, to be informed of the change of firm into a limited company, and to wish the new firm prosperity. Mr. Wallace was then quite well, and proposed the toast of "Prosperity to the new company." The funeral takes place at Merton parish churchyard to-day (Saturday) at three o'clock.

Market Reports.

TAR AND AMMONIA PRODUCTS.

A change for the better is noticeable in one or two tar products, and benzols in particular, 90's now being quoted 7½d. to 8d., and 50/90's, 8¼d. to 8¾d. Carbolic acids are steady, but without change in price. Crude naphtha is dull, but solvent is more promising. Creosote contiues firm. Pitch has advanced to 29s. 6d. and 30s., f.o.b. East Coast.

Sulphate of ammonia is dull, and prices generally are lower. There is little doubt that a decline would be very acceptable in some quarters, but makers do not seem to see it, and being in a strong position as regards stocks, they should last well on to the autumn season. Nearest prompt values are:—Beckton, £12. 6s. 3d.; London (outside makes), £12. 6s. 3d.; Hull, £12. 3s. 9d.; and Leith, £12. 5s. Nitrate of soda, 7s. 10½d. cwt.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade all the works are well engaged with orders and there is a good all round demand for the chief products. In values there is no noteworthy change, and the current quotations are as follows:—Bleaching powder, softwoods, £4. 2s. 6d. per ton for makers works, and for export packages, f.o.b. Liverpool, £4. 15s. to £5. per ton. Chlorates of potash and soda are unchanged at 3½d. and 3¾d per lb. respectively. For caustic soda, both prompt and forward delivery, prices are steady as for some time past, viz:—77% £7. 12s. 6d.; 74% £7. 7s. 6d.; 70% £7.; 60% £6. nett per ton, f.o.b., Liverpool. Alkali, 58% is maintained at £3. 17s. 6d. bags, f.o.r. Soda crystals and bicarbonate are without alteration. For sulphur there is a steady good demand at £4. 12s. 6d. per ton. Saltcake in rather better request, and price 25/- to 26/- per ton, free on rail Sulphate of copper firm at £25. 10s. prompt, ano £25 per ton, forward delivery. Brown acetate of lime, American, is quiet at £5., c.i.f., and £4. 17s. 6d. English makes. Grey, £7. 17s. 6d. per ton, c.i.f. Acetate of soda steady at £12. 15s. per ton. White sugar of lead continues to decline in price; other lead salts firm. Zinc and tin salts are dearer with higher tendency. Yellow prussiate of potash firm at 8d. per lb. Prussiate of soda, 6¼d. per lb. Potash, caustic and carbonate, are in good request, and prices continue to advance. Nitrate of soda is steady at 7s. 9d. per cwt. For sulphocyanides there is only a quiet demand, but prices are firmer. Aniline oil and salt are dearer. White powdered arsenic, £19. to £19. 5s., according to brand. A quiet state of trade is generally reported from most districts.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron flat: Scotch Warrants closed at 69s. 5½d., Middlesbrough, 68s. 7d., cash, and hematite, 74s. 8d Copper firm: Chili bars, G.O.B.'s and G.M.B.s, closed at £76. 17s. 6d. to £77. 2s. 6d. cash; and £76. 17s. 6d. to £77. 2s. 6d. three months. Tin firm: Straits closed at £123. 7s. 6d. to £123 17s. 6d. cash, and £124. 5s. 0d. to £124. 15s. 0d. three months. Australian, £124. 5s.; English ingots, £126. 10s. Lead steady: Spanish, £14. 6s. 3d. to £14. 7s. 6d.; English, £14 10s. Silesian spelter, ordinary, £25. 1s. 3d. Nickel, 1s. 2½d. Antimony, £39. 10s. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 6s. 3d. *Copper Shares* steady: Cape, 4⅜ to 4½; Copiapo, 3¾ to 3⅞; Libiola, 1¾ to 2; Mason & Barry, 3¾ to 4; Rio Tinto, 46¼ to 46⅜; Tharsis, 8 to 8¼.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is steady, but the demand is weak, and there is very little doing at the moment. Olive is very firm, and only offered with care at £31. 10s. for Candia, and £32. per tun for Malaga. Linseed is firmly held at 22s. to 22s. 6d. cwt. for Liverpool makes in export casks. Cottonseed is unaltered, with Liverpool refined at 17s. to 17s. 6d. cwt. Castor oil is steady, but not very active, and sales are scarce; good seconds Calcutta is quoted 2⅜d., and first pressure French, 2 5/16d. per lb. Tallow is not in great demand, though so far prices show no change. Resin remains steady, and prices of all grades are fairly well maintained. Spirits of turpentine are quiet, and quotations range from 33s. to 33s. 6d. cwt. Petroleum is firmer, with American at 6½d. to 7¼d., and Russian refined, 5⅞d. to 6¼d.; a farthing advance.

CAKES.—There is a continued good inquiry for American Western linseed on the spot, and the recently improved quotation is well maintained at £6. 5s. to £6. 10s, with Bombay also well held for £6. 15s. to £7. per ton, but River Plate and Russian are quite nominal in value. Liverpool makes are moving off quietly for present delivery at £7. to £8. per ton, according to brand, and there is a fair inquiry for forward delivery. American decorticated cottonseed are steady, but not much inquired after at £5 12s. 6d. to £6. 2s. 6d., according to quality, for good to choice brands, but Liverpool makes are a shade steadier at £6. 2s. 6d. to £6. 15s. per ton. Consumers still purchase rather sparingly of Liverpool undecorticated makes, but the quotation is steadily maintained at £4. 17s. 6d. to £5. 7s. 6d. per ton, according to brand. The tone of the market for spot parcels of Egyptian remains steady, with sellers at £4. 5s. to £4. 7s. 6d. per ton, but only a moderate inquiry is experienced.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 91s., seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J C, 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s 9d.; black, 9s.; blue, 6s. Oxide of iron: Common, £7.' medium, £10.; finest, £20.; Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The remarks anent the seed crushing combination and the methods of the Standard Oil Co. made in the *Chemical Trade Journal* have been noticed by the local press and commended to the investing public. The stocks of seed in Hull for the month ending June, as against the previous month, were—Linseed, 19,834 qrs., against 31,030 qrs.; cottonseed, 4,302 tons, against 3 058 tons; rapeseed, 5,505 qrs., against 6,705 qrs.; whilst the imports during the month have been—Linseed, 24,162 tons, against 56,476 tons; rapeseed, 1,677 qrs., against 20,146 qrs.; cottonseed, 5.064 tons, against 12,611 tons. The present quotations are:—Linseed oil firm, in sympathy with seed, being quoted 20s. 1½d. spot, naked, 19s. 9d. month; 19s. 6d. July-August; 18s. 3d. last four months; boiled and refined, £1. to £1. 10s. per ton extra. Refined cotton oil a shade easier, business being done at 15s. 3d. spot, naked, and more inquiry thereat, 15s. 6d. being the value July; 15s. 7½d. August; 14s. 3d. buyers, November/April, crude being quoted 14s. spot; barrels £1. 10s. and ordinary casks £1. per ton extra. Castor oil, cold drawn pharmaceutical, 28s. in barrels, 3 5/16d. per lb. in cases; first pressure, 25s. 6d. per cwt. in barrels; 3d. per lb. in cases; second pressure, 24s. 6d. per cwt. in barrels, 2⅞d. per lb. in cases. Cod oil, £16. to £18. per ton. Olive oil unchanged. Turpentine and resin quoted easier forward. Olive oil soap, £15. 10s. per ton, c.i.f. Hull. American pail lard, 28s. to 29s.; bladdered, 33s. to 37s. Butters, Swedish and Danish, 100s. to 106s.; Dutch, 99s. to 103s.; Irish, 98s. to 100s.

CAKES.—Prices remain firm owing to a limited supply; demand only quiet. Linseed cakes firmer, 95% pure, £6. 17s. 6d. to £7. Oilcake (linseed), £5. 17s. 6d. to £6.; Russian, £6. 17s. 6d. to £7. Cotton cakes steady, best makes £5. to £5. 2s. 6d.; seconds, £4. 15s. to £4. 17s 6d.; decorticated, £6. 7s. 6d. to £6. 10s.; meal, £5. 17s. 6d. to £6. Rape cakes, Black Sea, £4. 2s. 6d.

PAINTS.—The markets since the turning of the half-year have had but little opportunity for any development. Prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Tuesday.

The behaviour of sulphate of ammonia continues erratic, one day weak and another day promising amendment, but nothing of any sort to last. Last week, in the early part of it, the feeling was healthier, and makers were stiffening their quotations; but this week it is altogether the other way. Prompt f.o.b. Leith is about £12. 5s.; that is, a buyer could depend on getting a supply at this figure, but would not be certain of getting that back for it if he wanted immediately to dispose of it. Otherwise, the chemical market here is in a steady and fairly satisfactory condition, with prices satisfactorily maintained, for the most part, though sulphate of copper still tends a little to the down grade, as has been the case since about the close of May. Heavy chemicals are in very good demand for shipment. Mineral oils and paraffins as before.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 7s. 6d., 70/72° £7., 60/62° £6., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 7s. 6d. to £5. 12s. 6d. nett, Tyne; saltcake, 26s. 6d.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s.,

nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3⅝d., less 5% Liverpool; nitrate of soda, 8s.; sulphate of ammonia, £12. 5s. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb.; paraffin spirit (naphtha), 9d. to 9½d. per gal; paraffin oil (burning), No. 1, 6¼d.; and crystal, 6¾d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £4. 15s. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were 328 hhds., and 15 brls., beet, unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue quiet and in only moderate demand. Very little new business is passing. Soda Crystals are £2. 12s. 6d. per ton, gross weight locally. Caustic Soda 70% £7. per ton, 76/77% £8 per ton. Sulphur, £4. 15s. per ton.

Bleaching powder, softs, £5. 5s. per ton, nett; do., hards, £5. 10s. per ton, nett; caustic soda: 76/77% £8., and 70% £7. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. 0d. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. 0d. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The local market is a shade easier to-day, tho' there is still a fair demand for steam and bunker coals. Coke still continues very strong at 25/- and 26/- per ton. To-day's prices:—Best Northumbrian steam, 12s. 6d. to 12s. 9d. per ton; second qualities, 11s. 6d. to 11s. 9d. per ton; small steam, 6s. 6d. to 7s. per ton; bunker coals, 9s. to 10s. per ton; household coals, 10s. to 11s. per ton; coke, 25s. to 26s. per ton.

New Companies.

Ozourghetti Petroleum Syndicate, Ltd.—CAPITAL £10,000. in £1. shares.—This company has been formed to acquire, own, and work any petroleum or oil-bearing lands in Russia or elsewhere.

Home and Colonial Acetylene Gas Syndicate, Ltd.—CAPITAL £10,000. in £1. shares.—This company has been formed to carry on the business of manufacturers of and dealers in lamps, gas generators, acetylene and other gas, motors, cycles, rubber, &c. Registered office, 203, West George Street, Glasgow.

County Chemical Co., Ltd.—CAPITAL £10,000. in £1. shares.—This company has been formed to acquire and take over as a going concern and carry on the business of a manufacturing chemist, oil refiner, and dealer in cycle accessories, carried on by W. Hill, at High Street, Coleshill, Warwick, and 28, Masshouse Lane, Birmingham, as The County Chemical Co., and to adopt two agreements between W. Hill of the first part, E. Clark and Herbert J. Clark, of the second part, and the company of the third part. Registered office, 28, Masshouse Lane, Birmingham.

Anglo-Dutch Petroleum Exploration, Ltd.—CAPITAL £200,000. in £1. shares (100,000 pref.).—This company has been formed to acquire any lands or concessions in the East Indies or elsewhere, and to search for, win, get, refine, prepare for market, and deal in petroleum and other oils, and the products thereof. The subscribers to the memorandum of association are:—F. O Aller, Nassau Zuilensteinstraadt 11, The Hague, gentleman; G. F. Lucania, Laan Coper 62, The Hague, gentleman; G Harris, 86, Lime Street, E.C, merchant; G W. P. Woodroffe, 1, East India Avenue, E.C., merchant; A. Serenaj, 8, Austin Friars, E.C., shipowner; W. Simpson, 35, New Broad Street, E.C., clerk; A. S. Jecks, 12, Pembridge Gardens, W., gentleman.

Gazette Notices.

PARTNERSHIPS DISSOLVED.

H. WALLACE and R. A. WALLACE, chemical manufacturers, Fenchurch-street, E.C., under the style of Hugh Wallace & Co.

G. S. V. WILLS and H. WOOTTON, lecturers on chemistry, etc., Westminster College of Chemistry and Pharmacy, Trinity-street, Newington, S E., under the style of Wills & Wootton.

BANKRUPTCY ACTS, 1883 and 1890.

Adjudication.

LERCE, G., Barrow-in-Furness, salt and produce merchant, etc.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending June 24th.

Acetic Acid—

Holland,	75 pks.	R. W. Greeff & Co.

Acetone—

Germany,	10 pks.	J. Norrenberg & Co.
Austria,	21	D. T. Domeier & Co
Holland,	1	R. W. Greeff & Co.

Acid—

Holland,	108 pks.	Little & Johnston
Belgium,	11	F. C. Devon & Co.
Holland,	25	Kirkpatrick, Barr & Co.

Alkali—

France,	8 t.	J. Barber & Co

Alum—

Holland.	845 pks.	J. White

Antimony Ore—

Turkey,	30 t.	G. Smith & Son
,,	53	Union L. Co., Ld.
,,	60	J. Cameroon, Swan, & Co.
,,	13	H. R. Merton & Co.
Spain,	10	J. Bamber
Adelaide,	18	A. Gibbs & Sons
Sydney,	7	,,
,,	3	Soundy & Sons

Arsenic—

Portugal,	£375	Coverley & Westray

Barium Sulphate—

Belgium,	700 pks.	J. L. Lyon & Co.

Barytes—

Holland,	100	H. Evans & Co.
,,	100	T. H. Lee
,,	95	Wilkinson, Heywood & Co.
,,	45	W. Harrison & Co.
,,	4	J. Owen
Belgium,	300	Capes & Self
,,	249	W. Harrison & Co.
,,	70	J. L. Lyon & Co.
Germany,	68	,,
,,	38	Burrell & Co.
,,	68	W. Harrison & Co.

Bleaching Powder—

France,	50 pks.	J. M. Steel & Co.
Holland,	40	,,

Bones—

Melbourne,	10 t.	Culverwell, Brooks & Co.
N. Zealand,	1	,,

Caoutchouc—

Germany,	4 t.	10 c.	L. & I. D. Jt. Co.
,,	1	7	Prop. Bull Wf
E. Indies,	1	7	W. M. Smith & Sons
,,		1	G. Williamson & Co.
,,		2	L. & I. D. Jt Co.
Zanzibar	1	14	Hale & Son
Straits,	5	10	W. Pope & Co.
,,	26	5	E. Boustead & Co.
,,	2	7	Butler's Wf., Ld.
Zanzibar,		6	L. & I. D. Jt. Co.
N. Russia,	19	11	Lon. & Til Ltge. C. & D. Co., Ld.
France,	1	8	Girard Brs. & Co.
,,	5		T. H. Lee
Belgium,	4	18	Prop. Bull Wf.
Chile,	8	14	De Lissa, Sons & Co.
Germany,	1	7	Prop. Bull Wf.
Sweden.		1	M. D. Co

Castor Oil—

E. Indies,	140 cs.	W. M Smith & Sons
,,	10½	W. Balchin, Ld.

Caustic Potash—

Germany,	4 pks.	J. M. Steel & Co.
France,	20	Petri Brs.

Chemicals (*otherwise undescribed*)

Belgium,	£20	John Cockerill Line
,,	49	T. Palmer
,,	30	C. Atkins & Nisbet
France,	10	Union L. Co., Ld.
,,	122	Mory & Co.
Germany,	42	L. & I. D. Jt. Co.
,,	20	Craven & Co.
,,	18	Argo S. S. Co.
,,	15	Butler's Wf., Ld

Citrate of Lime—

Italy,	63 pks.	B. Jacob & Sons

Citric Acid—

Germany,	20 pks	F. C. Devon & Co.
Italy.	40	C. Christophersen & Co.

Coal Products—

Pitch

Belgium,	54 cks.	Pothe Hille, & Co.
N. Russia,	100 brls.	J. D. Hewitt & Co.

Tar

Germany,	63 brls.	J. Owen
N. Russia,	100	W. Beard & Son
,,	601	Linck, Moeller & Co.
Holland,	5 cks.	C. S. Lovell

Colours—

Holland,	96 cs.	J. Owen

Cream of Tartar—

France,	8 pks.	C. Atkins & Nisbet
,,	2	Allan Brs. & Co
Italy	24	Fellows, Morton & Co.

Disinfectants—

Germany,	£34	Argo S. S. Co
,,	35	J. Norrenburg & Co'

Dyestuffs—

Argols

Italy,	149 pks.	Thames S. T. & L Co., Ld.
,,	418	B. Jacob & Sons

Coal Tar Dyes

Holland,	18 pks.	M. Benscher

Cochineal

Canaries,	10 pks.	Swanston & Co.
,,	6	W. M. Smith & Sons

Cutch

Straits,	117 pks	Borneo Co., Ld.

Extract

Austria,	102 pks.	Hoare, Wilson & Co.
,,	230	Boetcher, Mortimore & Co.
,,	68	Fellows, Morton & Co.
Denmark,	7	M. D. Co.
U. States,	9	J. W. & T. A. Smith
Germany,	205	Argo S. S. Co.
France,	1	Burnett Brs. & Sons
,,	55	L. J. Levinstein & Sons
Holland,	10	J. Norrenberg & Co.
France,	1	Prop. Bull's Wf.

Gambier
Straits, 385 pks. S. Barrow & Bro.
" 1,123 Union L. Co., Ld.
" 113 W. France & Co.
" 427 S. Figgis & Co.

Indigo
U. States, 25 trns. L. & I. D. Jt. Co.
Germany, 10 chts. "
E. Indies, 15 Parsons & Keith
France, 1 cs. Union L. Co., Ld.

Myrabolams
E. Indies, 4,000 pks. W. Shelcott & Sons
" 1,000 pkts P. & O. Co

Saffron
Spain, 1 pk. J. Barber & Co
" 1 cs. H. Rubeck

Shumac
Italy, 350 pks J. W. Cook & Co.,
" 530 Butler's Wf., Ld.

Tanners' Bark
Natal, 55 t. J. T. Rennie, Son & Co.
" 159 A. & W. Nesbitt
" 115 Flack, Chandler & Co.
" 80 Leach & Co.
Belgium, 10 "
" 3 T. H. Lee

Valonia
A. Turkey, 225 t. A. & W. Nesbitt
" 150 F. Claydon & Co.
" 88 Anning & Cobb
" 100 Hicks, Nash & Co.
" 75 T. & H. Wilks
" 10 Boutcher, Mortimore & Co.
" 22 A. Laming & Co.

Farina—
Holland, 42 pks. Phillipps & Graves
France, 10 Tyser & Co.
" 7 Rosenberg, Loewe & Co.
Germany, 50 Seaward Brs. & Co.
" 100 R. Bennett & Co.
Holland, 50 J. Knill & Co.
Germany, 250 J. Barber & Co.
Holland, 50 "
" 100 Thames S. T. & L. Co., Ld.
" 60 Ohlenschlager Brs.

Glucose—
U. States, 50 pks 50 cwts. Fellows, Morton & Co.
" 50 293 E. & C. Morton
" 650 650 G. Clarke & Son
" 100 583 J. Keiller & Son, Ld.
" 130 663 L. Norman & Co., Ld.
" 500 500 E. Thompson & Co.
" 473 2,300 W. Grose & Co.
" 50 310 A. B. Curtis & Co.
" 1,967 5,452 R. G. Hall & Co.
" 50 298 Fardell & Son
Germany, 100 100 Trier, Meyer & Co.
" 8 63 J. Knill & Co.

Glue—
France, £160 J. Harrison
Holland, 35 Hernu, Peron & Co.
Germany, 45 M. H. Voss
Belgium, 40 Leach & Co.
France, 62 Mory & Co.
" 468 Lon. & Til. Light C. & D. Co.
Germany, 48 L. & I. D. Jt. Co.
" 104 M. D. Co.
N. Russia, 30 "
Holland, 75 G. S. N. Co.
" 150 J. Barber & Co.
Austria, 215 Bellamy's Wf., Ld.
" 215 Beresford & Co.
Belgium, 500 G. E. Banes
" 10 Rosenberg, Loewe & Co.
" 592 Becker & Wagner
France, 975 T. M. Duche & Sons
Belgium, 90 T. H. Lee
Germany, 48 Butler's Wf., Ld.
" 53 Argo S. S. Co.

Gutta Percha—
Sydney, 1 c. H. Devitt & Co.
Straits 23 Borneo Co., Ld.

Iron Oxide—
Germany, 5 pks. H. Lambert
Austria, 6 O'Hara & Hoar

Lead Acetate—
Germany, £160 F. Boehm

Litharge—
Germany, 16 cks. Butler's Wf., Ld.

Manganese Ore—
E. Indies, 10 t. W. H. J. Alexander

Manure—
U. States, 35 t. F. Claydon & Co.
E. Indies, 189 Fox, Roy, & Co.
" 120 A. B. Curtis & Co.
" 125 A. Hunter & Co.
" 200 W. Norfolk Farmers' Manure Co.
Belgium, 3 T. Ronaldson & Co.

Methyl Alcohol—
France, 1,718 g. E. Catlin
" 200 J. Harrison
" 240 Lister & Biggs

Molasses—
U. States, 75 cks. 230 c. E. Herring, Giles, & Co.
W. Indies, 252 2,770 J. W. Cook & Co., Ld.

Ochre—
E. Indies, 5 pks. Brit. Anti-Fouling C. & P. Co.
France, 53 J. L. Lyon & Co.
" 292 W. Harrison & Co.

Paraffin Wax—
U. States, 250 cs. Anglo-American Oil Co.

Phosphates—
Holland, 235 t. West & Penrose
Belgium, 200 "
France, 250 W. E. Cole

Potash—
Canada, 2 t. 18 c. S. Ward & Co.
Belgium, 5 pks. T. H. Lee
Germany, 1 Argo S. S. Co.

Potassium Bicarbonate—
Holland, 10 pks A. & M. Zimmermann

Potassium Carbonate—
Germany, 2 pks. L. & I. D. Jt. Co.
" 5 t. Petri Brs.
France, 5 c. "
Canada, 5 9 Charles & Fox

Potassium Permanganate—
Germany, 50 pks. R. W. Greeff & Co.

Pyrites—
Spain, 1,680 t. Naylor, Benzon, & Co.

Red Lead—
Germany, 17 pks. Taylor Brs.
" 37 J. Barber & Co
Holland, 70 Randall Brs.

Rosin—
U. States, 1,030 brls. F. Claydon & Co.
" 4,213 F. & S. Chiesman & Co.
Holland, 6 cks J. Owen
Austria, 1 Nichs Wvs. Co.

Salicylic Acid—
Belgium, 16 pks. John Cockerill Line

Saltpetre—
Germany, 16 brls. L. & I. D. Jt. Co.
" 16 P. Hecker & Co.
" 80 cks. "
" 350 bgs. S. E. Railway Co.
Belgium, 58 J. Greig
E. Indies, 1,220 Lucas & Spencer's Wf.

Soda—
Austria, 4 t. 10 c. J. Norrenberg & Co.
Germany, 7 cs. Argo S. S. Co.

Sodium Bicarbonate—
Austria, 5 t. 15 c. City Coml. Wf., Ld.

Sodium Hypochlorite—
Germany, 7 t. H. Lambert

Sodium Prussiate—
Belgium, 67 pks. J. Owen

Starch—
Holland, 44 pks. J. Barber & Co.
" 1,020 "
" 40 T. H. Lee
" 1,887 Little & Johnston
" 90 G. S. N. Co.
Germany, 20 Argo S. S. Co.
" 1,050 Horne & Co.
Belgium, 120 "
" 80 Taylor Brs.
" 44 Leach & Co.
" 475 T. H. Lee
" 241 Becker & Wagner
" 40 T. Ronaldson & Co.
France, 460 A. C. Hitchcock
U. States, 200 Anderson, Tulloch, & Co

Stearine—
Holland, 41 pks. J. Owen
U. States, 5 hhds. Beresford & Co.
France, 141 bgs. H. Hill & Sons
Belgium, 341 "
" 50 J. Harrison

Talc—
E. Indies, £316 A. B. Curtis & Co.

Tallow—
Canada, 9 cks. R. Tucker & Co.
N. Zealand, 6 Culverwell, Brooks, & Co.
" 30 Goad, Rigg, & Co.
" 199 N. Z. L. & M. A. Co.
" 264 Col., Con., & Di-t. Co.
" 41 Lucas & Spencer's Wf.
" 3 L. & I. D. Jt. Co.
" 6 brls. "
Melbourne, 169 cks. "
" 80 G. S. Yuill & Co.
" 152 Elkan & Co.
" 130 Union Ltge. Co., Ld.
" 393 Phillipps & Graves
Sweden, 100 bgs. W. E. Bott & Co.

Tartar—
Italy, 46 pks. B. Jacob & Sons
" 17 Howards & Sons

Tartaric Acid—
France, 12 pks. R. W. Greeff & Co.
" 8 B. & F. Wf. Co., Ld.
" 15 F. C. Devon & Co.
Holland, 12 Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 13 pks. G. S. N. Co.
" 8 Phillipps & Graves
" 2 J. Owen
Germany, 2 Glaesser & Vogeler
Belgium, 2 J. L. Lyon & Co.

Varnish—
France, 5 pks. Mory & Co.
Germany, 22 T. H. Lee
" 10 Brit. Anti-Fouling Co.
Belgium, 6 Wilson & Co.

Verdigris—
France, 4 pks. B. & F. Wf. Co., Ld.

White Lead—
Belgium, 43 pks. J. L. Lyon & Co.
" 75 T. & W. Farmiloe, Ld.
France, 16 J. Watt & Son
Holland, 30 Kerestedji & Co.
" 48 T. & W. Farmiloe, Ld.
" 29 Burrell & Co.

Wolfram Ore—
Sydney, 2 t. 5 c. A. Gibbs & Sons

Wood Pulp—
U. States, 880 pks. Henderson, Craig, & Co.
" 245 W. G. Taylor & Co., Ld.
Norway, 1,600 J. Sharp
" 410 Alsing & Co., Ld.
" 150 W. E. Bott & Co.
" 3,480 London Paper Mills Co.
" 400 E. J. & W. Goldsmith
" 500 70 t. Becker & Co.
Sweden, 30 "
" 1,120 W. G. Taylor & Co., Ld.
" 494 50 t. Raby & Mather
" 505 W. D. Cork
" 8,800 Henderson, Craig, & Co.
" 569 M. Dk. Co.
" 420 Becker & Wagner
N. Russia, 184 Thames S. T. & L. Co., Ld.
Denmark, 56 Humphery & Co.
Belgium, 3,320 J. Harrison

Zinc Oxide—
Germany, 25 pks. R. W. Greeff & Co.
" 500 Soundy & Sons
" 20 W. Balchin, Ld.
Holland, 100 Fellows, Morton, & Co.
" 124 M. Ashby, Ld.

Zinc White—
Holland, 3 pks. J. Walter & Co

LIVERPOOL.

Week ending June 22nd.

Acetate of Lime—
New York, 949 bgs.

Aluminium—
New York, 340 bxs. T. Ashbury

Arsenic—
B. Ayres, 2 cks.

Barytes—
Antwerp, 34 cks., 50 cs., 33 brls., 100 bgs.

Bone Ash—
Antwerp. 100 bgs.

Caustic Soda—
B. Ayres, 3 cks.

Chemicals *(otherwise undescribed)*
Hamburg, 3 cs.

Coal Products—
Benzine
New York, 710 brls.
Naphtha
New York, 6,113 brls.
Tar
Wilmington 4,231 brls.

Cobalt—
Rouen, 4 cs. Co-op. W'sale Society, Ld.

Colours—
Havre, 2 cks. Cunard S.S. Co.
Rotterdam, 16 cks., 11 tubs
Stettin 20 cks.

Cottonseed Oil—
New York, 50 brls.
Newport News, 150

Cream of Tartar—
Barcelona, 3 cks. F. J. Sitzler
" 5 butts., 8 brls.
Bordeaux, 57 cks.
Oporto, 15 Sachse & Klemm
Tarragona, 6

Dyestuffs—
Extract
Baltimore, 25 brls. McArthur & Co.
Bordeaux, 134 cks.
Fiume, 140 brls. Deblermont & Dormer
" 300 The Oak Extract Co., Ld.
Havre, 12 cks. Cunard S.S Co.
Montreal, 50 brls.
Newport News, 50 H. Rooke, Sons, & Co.
" 25 "
Rotterdam 20 cks.
Rouen, 260 Co-op W'sale Society, Ld.
Fustic
Trieste, 4 t. 10 c. Bucura & Economo
Indigo
Karachi, 60 cs.
Shumac
Barcelona, 100 sks.
Palermo, 1,500 bgs., 75 bls.
Valonia
C'stantinople, 1,784 bgs. Jivian, Tekeian & Co.
Smyrna, 142 t. 435 bgs. Barcy Brs.
" 558

Farina—
Fiume, 50 bgs.
Stettin, 50

Glucose—
Boston, 95 brls.
Dunkirk, 100 bgs.
Montreal, 1,650 brls.
New York, 160

Glue—
Hamburg, 30 bgs.
Rotterdam, 140
Rouen, 4 cks. Co-op. W'sale Society, Ld.

Glue Stock—
Hamburg, 62 bls.
Marseilles, 697

Guano—
New York, 20 bls. W. Clucas & Son

Logwood Extract—
New York, 78 cks. W. J. Chemical Wks.

Mica—
New York, 27 brls.
St. John's, 16

Mica (Pulp)—
New York, 3 brls.

Ochre—
Alicante, 150 sks.
Marseilles, 3 cks. J. Glynn & Sons
" 60 "
Rouen, 66 Co-op. W'sale Society, Ld.

Paint—
Boston, 20 cs.

Paraffin Wax—
Baltimore, 100 brls.
New York, 300 Thompson & Bedford
" 500 Eng. & Am. Oil Co.

Phosphates—
Beaufort, S.C. 2,763 t.
Ghent, 685 J. T. Fletcher & Co.
"

Potash—
Dunkirk, 25 dms.
Hamburg, 20 cks.
Montreal, 25 brls.
Rouen, 68 cks. Co-op. W'sale Society, Ltd.
Stettin, 2 Sachse & Klemm

Potassium Carbonate—
Hamburg, 1 ck.
Stettin, 10 Sachse & Klemm

Potassium Prussiate—
Marseilles, 19 brls.

Pyrites—
Huelva, 5,657 t. Mathieson & Co

Red Lead—
Rotterdam, 58 cks

Rosin—
Wilmington, 1,458 brls.

Salt—
Hamburg, 502 bgs.

Saltpetre—
Hamburg, 4 cks.

Soap—
Bari, 933 cs.
Constantinople, 20
Marseilles, 5 J. & J. S. Briggs
" 80 L. Chapnut & Co.
" 50 Kerry, Watson, & Co.
" 247 Law, Young, & Co.
" 100 The Fancy Goods Co.
" 30 E. Adams & Co
New York, 2,000 bxs Lever Brs., Ld.

Soap Stock—
Bari, 1 pk.
New York, 300 brls.

Soapstone—
Bordeaux, 400 bgs. Geo. G. Blackwell, Sons & Co., Ld.

Soap Waste—
Barcelona, 20 brls.

Starch—
Antwerp, 40 cs. J. T. Fletcher & Co.
" 642
Rotterdam, 53

Stearine—
Antwerp, 38 bgs. J. T. Fletcher & Co.
" 38
Montreal, 250 tcs.
" 246 T. Marc & Co.
Rouen, 50 bgs. Co-op W'sale Society, Ltd.

Sulphur—
Catania, 100 brls. R. Mills & Co.
" 112
" 220 bgs.

Sulphurous Acid—
Antwerp, 5 cylders

Tallow—
Baltimore, 131 brls.
Boston, 174 tcs.
B. Ayres, 232 pps. Lon. & Brazil
186 brls. Bank. Co.
Montreal, 249 tcs. Darling Brs.
" 100 pls. 254
New York, 50

Tartaric Acid—
Hamburg, 4 cks.
Marseilles, 52

Ultramarine—
Rotterdam, 25 cks

Varnish—
New York, 10 brls.
Rotterdam, 3 cks.

White Lead—
Antwerp, 13 cks.
Rotterdam, 87

Wood Pulp—
Boston, 362 pks. Lever Bros., Ld.
Gefle, 250 bls.
Halifax, 8,593
Oporto, 1,000
Rotterdam, 22 rolls, 153 bls, 18 pks.

Zinc Oxide—
Rotterdam, 10 brls.

Zinc White—
Rotterdam, 13 cks.

MANCHESTER.

Week ending June 24th.

Antimony Oxalate—
Rotterdam, 10 cks.

Castor Oil—
Antwerp, 67 brls.

Coal Products—
Alizarine
Rotterdam 174 cks.
Aniline Salt
Antwerp, 32 brls.
Pitch
Hamburg, 47 cks.

Colours—
Hamburg, 20 cks 1 cs. 41 dms.
Rotterdam, 84 14, 106 brls., 27 bxs.

Dyestuffs—
Fustic
Punta Arenas, 1,100 t.
Indigo
Rotterdam, 3 chts.
Tannin
Hamburg, 3 cks.

Gelatine—
Hamburg, 1 cs.

Glucose—
New York, 250 brls.

Glue—
Antwerp, 93 bls.
Rotterdam, 30 bgs. 40 cs.

Paint—
New York, 13 kgs.
Stockholm, 1 cs. W. H. Stott & Co.

Paraffin Wax—
New York, 530 brls.

Potash—
Hamburg, 58 cks.
Rotterdam, 30

Soap—
Hamburg, 1 cs.

Starch—
Antwerp, 225 cs.
New York, 600 bgs.
Rotterdam, 85

Sulphuric Acid—
Rotterdam, 35 cks.

Tartar—
Hamburg, 12 cks.

Tartaric Acid—
Rotterdam, 10 kgs.

Varnish—
New York, 6 brls.

Wood Pulp—
Gefle, 2,200 bls. W. H. Stott & Co.
Gothenburg, 3,289 1,284 pks.
Hamburg, 150 bdls.
Rotterdam, 121 rolls 501
Sundswall, 3,870 bls.
Sarpsborg, 3,100 Kellner, Partington P. P. Co., Ld

Zinc Oxide—
Antwerp, 30 brls.
New York, 100
Rotterdam, 20

Zinc White—
Rotterdam, 28 cks.

HULL.

Week ending June 24th.

Acids—
Bremen, 40 crbys.

Aluminium—
Antwerp, 3 brls. Wilson, Sons, & Co., Ld

Antimony Salt—
Bremen, 7 cks Veltmann & Co

Barytes—
Antwerp, 69 cks. Bailey & Leetham, Ld.
" 125 Wilson, Sons, & Co., Ld.
Bremen, 20 G. Holmes & Co.
" 30

Castor Oil—
Leghorn, 43 cs. Wilson Sons, & Co., Ld
Marseilles, 20 cks. "
" 25 pks. "
Trieste, 11 cs. "

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. Hull & Netherlands S. S. Co.
Danzig, 15 cks. Wilson, Sons, & Co, Ld.
Rotterdam, 2 Hull & Netherlands S. S. Co.
6 cs.

Coal Products—
Alizarine
Rotterdam, 56 brls. 46 pks. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 47 pks. 2 bxs. 13 brls. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.
Pitch
St. Petersburg, 137 cks.
Tar
Marseilles, 54 cks.

Colours—
Amsterdam, 1 pcl. Hull & Netherlands S. S. Co.
Bremen, 3 cks. Veltmann & Co.
Dunkirk, 2 cs. Wilson, Sons, & Co., Ld
Fiume, 150 bgs.
Hamburg, 20 dms. "
Rotterdam, 1 cs. 7 cks. 50 pks. Hull & Netherlands S. S. Co.
Stettin, 200 cks. Wilson Sons, & Co., Ld.

Cottonseed Oil—
New York, 120 brls. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Bordeaux, 27 cks.
Genoa, 2 brls. Wilson, Sons, & Co., Ld.

Dyestuffs *(otherwise undescribed)*
Hamburg, 220 bgs. Wilson, Sons, & Co., Ld.

Dyestuffs—
Dyewood
Antwerp, 16 bls. Wilson, Sons, & Co., Ld.
Extract
Bordeaux, 180 cks.
Dunkirk, 19 Wilson, Sons, & Co., Ld.
Fiume, 70 brls. "
Marseilles, 28 cks.
Rouen, 31 "
Indigo
Rotterdam, 6 cs. 12 brls. Hull & Netherlands S. S. Co.
Sumac
Palermo, 1,250 bgs. Wilson, Sons, & Co., Ld.
" 2,034
Sumac Extract
Trieste, 35 brls. Wilson, Sons, & Co., Ld.
Valonia
Trieste, 98 bgs. Wilson, Sons, & Co., Ld.

Farina—
Stettin, 900 bgs. Wilson, Sons, & Co., Ld.

Glucose—
New York, 574 brls
Rotterdam, 80 bgs Hull & Netherlands S. S. Co.

Glue—
Rouen, 10 cks. Wilson, Sons, & Co., Ld.

Guano—
Aalesund, 10 bgs. Wilson, Sons, & Co., Ld.

Lead Acetate—
Stettin, 6 cks. Wilson, Sons, & Co., Ld.

Molasses—
Alexandria, 100 brls.

Ochre—
Marseilles, 25 cks.

Paraffin Wax—
New York, 208 brls.

Paranitrophenol—
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.

Phosphates—
Bougie, 600 t.
Dunkirk, 175 Wilson, Sons, & Co., Ld.
Ghent, 200 "

Potash—
Antwerp, 10 cks. Wilson, Sons, & Co, Ld.
" 2
Dunkirk, 20 dms. 7 cks. "

Pyrites—
Huelva, 2,953 t.

Red Lead—
Rotterdam, 18 cks. Hull & Netherlands S. S. Co.

Rosin—
Trieste, 2 cs. Wilson, Sons, & Co., Ld.

Soap—
Bari, 10 cs. Wilson, Sons, & Co., Ld.
Dunkirk, 2 "
Marseilles, 3
Naples, 82 "
" 8
New York, 100 bxs. 1 cs.

Soda—
Fiume, 28 cks.
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.

Sodium Nitrate—
Hamburg, 758 bgs.

Starch—
Antwerp, 461 cs. Wilson, Sons, & Co., Ld.
Bremen, 1,702 pks. Veltmann & Co.
Ghent, 160 cs. Wilson, Sons, & Co., Ld.

Sulphur—
Catania, 468 bgs. Wilson, Sons, & Co., Ld.
101 brls.
" 50 t.

Tallow—
Dunkirk, 233 cks. Wilson, Sons, & Co., Ld.
New York, 267 cks. "

Tartar—
Molfetta, 3 cks Wilson, Sons, & Co., Ld.
Naples, 24 "

Tartaric Acid—
Bari, 178 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 12 Hull & Netherlands S. S. Co.

Turpentine—
Bordeaux, 5 cks.

Ultramarine—
Bremen, 3 cks. Veltmann & Co.
Rotterdam, 4 Hull & Netherlands S. S. Co.

Varnish—
Antwerp, 3 brls. Bailey & Leetham, Ld.

Waste Salt—
Hamburg, 757 bgs.

White Lead
Amsterdam, 43 cks. Hull & Netherlands S. S. Co.
Antwerp, 28 Bailey & Leetham, Ld.
Rotterdam, 55 Hull & Netherlands S. S. Co.

Wood Pulp—
Drontheim, 360 bls. Wilson, Sons, & Co., Ld.
Gothenburg, 335 bdls. 65 bls. "
Hango, 100 J. Good & Sons
Helsingfors, 288 "
Norrkoping, 200 Wilson, Sons, & Co., Ld.

Zinc Oxide—
Antwerp, 20 cks.

Zinc White—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending June 29th.

Acetic Acid—
Rotterdam, 8 cks.

Alum—
Amsterdam, 15 cks.

Ammonium Chloride—
Hamburg, 2 cks.

Barium Sulphate—
Antwerp, 12 cks. 780 bgs.

Barytes—
Rotterdam, 91 pks.

Castor Oil—
Antwerp, 83 cks.

Chalk—
Rouen, 4 cs.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. Jas Rankine & Son
Hamburg, 4
Rotterdam, 3

Coal Products—
Alizarine
Rotterdam, 36 cks., 2 bxs., 1 b l. — J. Rankine & Son
Aniline
Rotterdam, 15 cks. — J. Rankine & Son
Colours—
Amsterdam, 3 cks
Hamburg, 10, 1 cs., 1 bdl.
Rotterdam, 7 bxs., 4 brls., 37 pks. — J. Rankine & Son
Cream of Tartar—
Bordeaux, 4 cks.
Dextrine—
Montreal, 100 brls.
Dyestuffs—
Indigo
Rotterdam, 12 cks. — J. Rankine & Son
" 10
Dyewood Extract—
Rotterdam, 2 cks.
Glucose—
Philadelphia, 100 brls.
Glue—
Hamburg, 20 bgs.
Rotterdam, 100 — J. Rankine & Son
" 10
Manganese—
Antwerp, 14 cks.
Oxalic Acid—
Rotterdam, 6 cks.
Paraffin Wax—
St. John's, Nfd., 400 brls.
Potash—
Hamburg, 20 cks.
Montreal, 6 brls.
Pyrites—
Huelva, 2,124 t. — Tharsis Sulphur & Copper Co.
Rosin—
Savannah, 2,707 brls.
Salammoniac—
Rotterdam, 4 cks. — J. Rankine & Son
Soap—
Philadelphia, 250 bxs.
Starch—
Antwerp, 40 cs.
Rotterdam, 23 — J. Rankine & Son
Turpentine—
Savannah, 1,000 brls.
Varnish—
Antwerp, 4 cks.
Waste Salt—
Hamburg, 500 bgs.
White Lead—
Rotterdam, 30 cks. — J. Rankine & Son
" 40 pks.
Wood Pulp—
Christiania, 68 bls.
Zinc Oxide—
Hamburg, 50 cks.

TYNE.

Week ending June 24th

Barytes—
Antwerp, 400 bgs. — Tyne S. S. Co.
Rotterdam, 200 — "
Chemicals (*otherwise undescribed*)
Hamburg, 17 cks. — Tyne S. S. Co.
Colours—
Amsterdam, 4 cks. — W. Swanston & Sons
Hamburg, 2 cks., 1 cs. — Tyne S. S. Co.
Rotterdam, 50 bgs. — "
Glue—
Hamburg, 70 bgs. — Tyne S. S. Co.
Phosphates—
Antwerp, 200 t. — Blaydon Manure and Alkali Co.
Dunkirk, 310 — Stephenson & Co.
Pyrites—
Huelva, 6,334 t. — Tharsis Sulphur & Copper Co.
Pyrites Slag—
Drontheim, 139 t. — Bede Metal and Chemical Co.
Salammoniac—
Rotterdam, 3 cks. — Tyne S. S. Co.
Saltpetre—
Hamburg, 230 t. — E. Brown & Co.
Saltpetre Salt—
Hamburg, 260 t. — Clephans & Wiencke
Soap—
Rotterdam, 8 cs. — Tyne S. S. Co.
Starch—
Antwerp, 100 cs. — Tyne S. S. Co.
Rotterdam, 120 — "
Varnish—
Antwerp, 10 brls. — Tyne S. S. Co.
Wood Pulp—
Arendal, 400 bls. — P. H. Matthiessen & Co.
Christiania, 440
Hamburg, 3 — Tyne S. S. Co.
Zinc Oxide—
Antwerp, 10 brls. — Tyne S. S. Co.

GOOLE.

Week ending June 21st.

Alkali—
Calais, 3 cks.
Antimony—
Boulogne, 6 cks.
Barytes—
Antwerp, 50 bgs., 67 cks.
Caoutchouc—
Boulogne, 7 cks.
Chemicals (*otherwise undescribed*)
Rotterdam, 1 ck.
Coal Products—
Aniline
Hamburg, 20 cks. 1 cs.
Colours—
Amsterdam, 6 pks.
Boulogne, 3 cks. 177
Rotterdam, 625 105 cs.
Dyestuffs (*otherwise undescribed*)
Amsterdam, 20 bs.
Boulogne, 3 cks.
Dyestuffs—
Extract
Hamburg, 406 bgs.
Fustic
Antwerp, 1,126 pcs.
Logwood
Belize, 510 t.
Glucose—
Calais, 200 bgs.
Glue—
Antwerp, 20 bgs.
Phosphates—
Ghent, 808 bgs.
Potash—
Calais, 8 dms
Hamburg, 6 cks.
Potassium Sulphate—
Dunkirk, 2 cks. 20 dms.
Rotterdam, 12
Pyrites—
Huelva, 817 t.
Quebracho Extract—
Hamburg, 78 brls.
Saltpetre—
Rotterdam, 200 bgs.
Starch—
Ghent, 148 cs.
Tannin Extract—
Amsterdam, 10 cks.
Wood Pulp—
Gothenburg, 3,000 bs.

GRIMSBY.

Week ending June 24th.

Barytes—
Hamburg, 8 cks.
Caoutchouc—
Hamburg, 15 cs.
Rotterdam, 2
Chemicals (*otherwise undescribed*)
Hamburg, 6 cks. 1 cs.
Colours—
Antwerp, 4 cks. 82 pks.
Hamburg, 93 6 cs. 98
Rotterdam, 4 kgs., 50 bxs.
Ferro Chrome—
Antwerp, 40 cs.
Starch—
Antwerp, 126 cs.
Wood Pulp—
Gothenburg, 80 bs.
Zinc Ashes—
Antwerp, 8 cks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending June 28th.

Ammonia—
Adelaide, 8 cs. £11
Durban, 3 cydrs. 20
Melbourne, 30 41
Rio de Janeiro, 3 34
Sydney, 40 54
Amm nia (Anhydrous)—
St. Petersburg, 4 c. £33
Ammonium Carbonate—
Bordeaux, 16 cks. £56
Dunkirk, 1 t. 30
Hamburg, 35 cks. 90
Sydney, 15 cs 25
Ammonium Muriate—
B. Ayres, 11 c. £11
Ammonium Sulphate—
Bremen, 75 t. £938
Charente, 57 19 c. 750
Malaga, 50 600
Messina, 6 3 70
Arsenic—
Brisbane, 2 t. £42
Bisulphite of Lime—
Durban, 14 c. £8
Bleaching Powder—
E. London, 2 t. £13
Bone Ash—
Melbourne, 1 t. £22
Borax—
Antwerp, 10 t. £250
Cadiz, 1 2 c. 17
Fremantle, 12 34
Melbourne, 13 15
Carbonic Acid Gas—
Bombay, 10 cs. £73
Channel Is., 87 tubes 33
Hong Kong, 10 50
Caustic Potash—
Napier, 5 c. £7
Caustic Soda—
Auckland, 2 t. £18
Brisbane, 5 9 c. 38
Delagoa Bay, 2 12 19
Durban, 1 22
Fremantle, 2 8 27
Townsville, 6 11
Zanzibar, 2 14 19
Chemicals (*otherwise undescribed*)
Adelaide, 16 kgs. £101
Amsterdam, 10 62
Antwerp, 110 cks. 177
Auckland, 3 cs. 10 pks. 31
B. Ayres, 7 38
Brussels, 15 kgs. 101
Delagoa Bay, 60 91
Fremantle, 8 c. 41
Hamburg, 50 312
Hong Kong, 14 91
Karachi, 5 50
Lisbon, 4 tubs 46
Melbourne, 22 57
New York, 20 brls. 4 4 151
Pt. Elizabeth, 8 39
Rotterdam, 20 kgs. 114
Sydney, 5 61
Toronto, 3 cks. 49
Wellington, 49 210
Citric Acid—
B. Ayres, 7 c. —
Brisbane, 11 £81
Gibraltar, 2 19
Hamburg, 10 57
Melbourne, 3 t. 5 317
Pt. Elizabeth, 2 11
Coal Products—
Alizarine
Boston, 22 cks. £306
St. Petersburg, 4 cs. 204
Aniline
Genoa 10 dms. £260
Melbourne, 2 cs. 33
Aniline Dye
Adelaide, 1 ck. 1 cs. £22
Sydney, 1 7
Benzine
Canterbury, 20 dms. £5
Benzol
Antwerp, 1 dm. £8
Boulogne, 50 cks. 157
Carbolic Acid
Auckland, 20 dms. £8
E. London, 2 cks. 6
Ludwigshafen, 25 136
Lyttelton, 1 cs. 5 7
Philadelphia, 48 200
Rio de Janeiro, 15 60
Shanghai, 100 pks. 9
Coal Tar Dyes
Boulogne, 6 cks. £42
Sydney, 1 cs. 17
Creosote
New York, 150 brls. £140
Naphtha
Adelaide, 50 dms. £28
Melbourne, 100 55
Sydney, 100 55
Naphthaline
Calcutta, 13 cks. £17
Hamburg, 100 bgs. 49
Melbourne, 24 cks. 31
Philadelphia, 1,142 bgs. 301
Pitch
Alexandria, 100 brls. £25
Amsterdam, 740 t. 776
Antwerp, 140 144
Boston, 500 cks. 450
Dunkirk, 100 t. 125
Hamburg, 86 cks. 258
Montreal, 350 83
Newport News, 603 bgs. 94
Sables d'Olonne, 800 t. 970
Pyridine
Antwerp, 12 cks. £95
Pyridine Bases
Dusseldorf, 24 cks. £235
Tar
Brisbane, 50 dms. £10
Calcutta, 100 rnlts. 85
Delagoa Bay, 300 29
Durban, 200 6
Las Palmas, 8 brls. 7
Melbourne, 20 cks. 23
Napier, 20 7
Tar Oil
Gothenburg, 40 rnlts. £40
Coal Products (*otherwise undes.*)—
Adelaide, 1 cs. £95
Copper Sulphate—
Amsterdam, 4 t. 19 c. £128
Antwerp, 10 160
Bordeaux, 5 130
Cream of Tartar—
Auckland, 10 c. £41
Brisbane, 6 20
Delagoa Bay, 2 17
Fremantle, 10 40
Sydney, 2 t. 10 205
Townsville, 5 12
Wellington, 14 56
Disinfectants—
Adelaide, 6 cs. £12
Amoy, 2 cks. 24 dms. 13
Delagoa Bay, 30 kgs. 10
Hamburg, 15 cks. 40, 26 pks. 95
Melbourne, 55 63
Penang, 50 dms. 67
Pt. Elizabeth, 8 15
St. Petersburg, 10 13
Sydney, 37 5 pks. 124
Wellington, 14 21
Manure—
Bluff, 51 t. £160
Christchurch, 300 2,325
Dunedin, 60 465
Guernsey, 3 16
Jamaica, 10 3 c. 108

Landerneau, 356 2,848
Madeira, 45 2 318
Malaga, 30 14 400
Morlaix, 386 1,488
Motril, 50 14 400
Teneriffe, 15 100
Timaru, 600 1,827

Oxalic Acid—
Brisbane, 4 cks. £29
Melbourne, 1 t. 29

Potassium Chlorate—
Auckland, 8 c. £13
Canterbury, 5 8

Potassium Cyanide—
Beira, 1 cs. £9
B. Ayres, 2 c. 13
Delagoa Bay, 25 t. 2,478
E. London, 15 1,601
Fremantle, 24 18 2,314
Melbourne, 7 721
Perth, 3 337
Sydney, 13 pks. 161

Salammoniac—
B. Ayres, 10 c. £17
Varna, 11 17

Salicylic Acid—
Fremantle, 1 cs. £12

Salt Cake—
Antwerp, 160 t. £125

Saltpetre—
Brisbane, 2 t. 4 c. £57
Fremantle, 10 10
Madeira, 8 10
Oporto, 17 9 332
Santos, 6 5 132

Sheep Dip—
Cape Town, 40 dms. £12
Durban, 3 t. 14 c. 131
M. Video, 13 16 312
Montreal, 3 pks. 7
Timaru, 20 cks. 335 dms. 208

Soda—
Melbourne, 8 c £16
M. Video, 15 21
Rotterdam, 5 t. 9 30

Soda Crystals—
Bunbury, 10 c. £6
Melbourne, 3 t. 6 18

Sodium Bicarbonate—
Sydney, 1 t. £23

Sulphur—
B. Ayres, 10 c. £13
Bunbury, 1 t. 10
Sydney, 5 8

Sulphuric Acid—
Antwerp. 30 dms. £64

Superphosphates—
Libau 300 t. £750

Tartaric Acid—
Antwerp, 10 cs. £74
Brisbane, 11 c. 54
B. Ayres, 3 kgs. 3 —
Delagoa Bay, 2 9
Wellington, 2 12

Washing Powder—
Sydney, 10 t. 11 c. £200

LIVERPOOL.

Week ending June 28th.

Acetic Acid—
Lisbon, 14 brls. £25
Piræus, 3 t. 35

Aluminous Cake—
Calcutta, 133 t. 16 c. £330
Melbourne, 7 4 1 q 19

Ammonium Carbonate—
Bremen, 1 t. 1 q. £29
Genoa, 1 26
Marseilles, 15 c. 21
Montreal, 10 2 15
M. Video, 18 3 24
Pernambuco, 12 2 18
Rotterdam, 2 56
Sundswall, 1 1 2 32

Ammonium Muriate—
Barcelona, 1 t. 8 c. £29
Piræus, 12 12

Ammonium Sulphate—
Colombo, 4 t. £65
Gd. Canary, 28 17 c. 361
Las Palmas, 90 5 1,128
Montserrat, 10 6
New York, 102 1,274
Palermo, 10 1 3 q. 121
Sourabaya, 100 900
Teneriffe, 10 127
Valencia, 113 1 1 1,141

Amorph. Phosphorus—
Hong Kong, 10 cs. £105

Arsenic—
Pt. Natal, 1 t. £20

Barium Sulphate—
New York, 20 t. 1 c. £59

Basic Slag—
Nantes, 1,162 t. 15 c. £1,744

Bleaching Powder—
Alleppey, 7 cs.
Bombay, 30 cks. 10
Boston, 97
B. Ayres, 6
Calcutta, 150
Gothenburg, 155
Johnsonburg, 141
Lowell, Mass., 61
Maranham, 6
Montreal, 27
Naples, 28
Newport News, 82
Philadelphia, 83
Rotterdam, 18
Rouen, 82
Seville, 16
Tyrone, 58
Vera Cruz, 18

Bones—
Montserrat 2 t. 2 c. £12

Borax—
Braila, 1 t. 2 c. 2 q. £15
Cape Town, 1 10 20
Habana, 2 5 38
Hamburg, 20 5 3 345
Montreal, 11 2 200
M. Video, 2 2 2 36
Natal, 2 32
Palermo, 6 2 5
Rotterdam 9 3 9
Santiago de Cuba, 10 11
Sydney, 3 43
Trieste, 2 4 1 26

Calcium Carbide—
Akassa, 3 t. 10 c. £77

Calcium Chloride—
Rangoon, 20 t. 2 c. £45

Carbonic Acid Gas—
Punta Arenas, 9 c. £25

Castor Oil—
Alexandria, 4 cs.
Honolulu, 250 dms.

Caustic Potash—
Havre, 1 t. 8 c. £36

Caustic Soda—
Adelaide, 17 dms.
Algoa Bay, 10
Alicante, 23
Amsterdam, 70
Bahia, 40
Barcelona, 292 25 cks 40 brls.
Bari, 106
Bilbao, 40
Bombay, 70
B. Ayres, 75
Calcutta, 48
Casias, 3
Chicago, 40
Corral, 23 bxs.
Delagoa Bay, 25
Fiume, 29
Gefle, 54 brls.
Genoa, 49
Gutujewsky, 83
Hamburg, 47
Havana, 24
Hiogo, 420
Hong Kong, 20 2
Kobe, 256
La Guayra, 30
Lisbon, 167
Melbourne, 61
Messina, 45
Milan, 30
M. Video, 25
Montreal, 140
N. Orleans, 50
New York, 200
Pernambuco, 50
Philadelphia, 50
Rangoon, 20 kgs.
Riga, 30
Rio de Janeiro, 20
Rotterdam, 51 6
Rouen, 25
Salonica, 18
San Sebastian, 61
Sao Paulo, 49
Seville. 30
Shanghai, 19
Smyrna, 35
Stettin, 35
St. Petersburg, 300
St. Stephen, 50
Tampico, 291
Tarragona, 30
Venice, 10
Vera Cruz, 276
Yokohama, 100

Chemicals *(otherwise undescribed)*
Ancona, 5 t. £25
Constantinople, 5 25
Geelong, 1 t. 11 c. 7
Rio de Janeiro, 8 5 27
Wellington. N.Z., 1 2 6

China Clay—
Bombay, 418 cks. 96 bgs.
Boston, 200
Calcutta, 320
Naples, 40
Newport News, 330
New York, 2,167
Philadelphia, 1,355
Ranegauge, 140
Roaring Spngs., 200
Trieste, 100

Coal Products—
Alizarine
Lisbon, 3 cks.
Samsoun, 30 kgs.
Sydney, 1
Aniline Colours
Alexandria, 1 kg.
Barcelona, 2
Boston, 5 brls.
New York, 1 8 / 62 cks.
Salonica, 2 cs.
Yokohama, 3
Aniline Dyes
Barcelona, 7 cks
Aniline Oil
Barcelona, 18 cks.
Aniline Salt
Boston, 40 cs.
Genoa, 2 t. 1
Lisbon, 4
Aniline Tar
Naples, 1 dm.
Carbolic Acid
Constantinople, 5 cs. £20
Genoa, 1 t. 1 c. 7c
Hamburg. 9 2 3 q. 538
Kingston, Ja., 2 cs. 6
Maranham, 1 5 c. 20
N. Orleans, 4 200
New York, 30 cks. 11 16 2 609
Para, 1 14
Rotterdam, 5 375
Venice, 9 22
Yokohama, 7 10 455
Creosote
Lisbon, 100 brls.
New York, 50 cks.
Creosote Oil
Baltimore, 30 cks.
Lisbon, 200 brls.
Montreal. 25
Newport News, 500
San Francisco, 990
Pitch
Antwerp, 151 t. 10 c.
Bilbao, 60 brls.
Durban 24 dms.
Galatz, 50
Talcahuano, 500
Tar
Bordeaux, 250 cks.
Honolulu, 200 brls.
Lome, 10
Philadelphia, 100

Copperas—
Vera Cruz, 3 t. £5

Copper Sulphate—
Antwerp, 19 t. 6 c. 2 q. £469
Bordeaux, 53 3 1 1,331
Catania, 4 19 2 124
Galatz, 4 13 1 9
Geelong, 3 77
Ghent. 20 3 3 507
Lisbon, 6 12 2 160
Montreal, 1 9 1 27
Naples, 10 1 3 250
Newfairwater, 4 9 115
Rotterdam, 15 17 2 372
Rouen, 54 12 1,389
Singapore, 5 142
Vigo, 10 1 227

Cream of Tartar—
Honolulu, 1 c. 2 q. £5

Disinfectants—
Habana, 4 c. £5
Havana 1 t. 6
Hong Kong, 5 2 q. 9

Dried Blood—
Gd Canary, 13 t. £100
Teneriffe, 6 46

Dyestuffs—
Tannin
Montreal, 3 c. £18

Glauber Salts—
Valparaiso, 3 t. £11

Glycerine—
Amsterdam, 14 c. £93
Hamburg, 33 t. 15 3 q. 1,520
New York, 61 1,700
Newport News, 49 17 2 1,372
Rotterdam, 24 1 970

Iron Oxide—
Campana, 6 t. 5 c. £67

Lead Nitrate—
Kingston, 3 t. 8 c. 2 q. £65

Magnesia—
Barcelona, 100 cs.
Marseilles, 3 t. 2 c.
Montreal, 31

Manure—
Gd. Canary, 32 t. £329
Honolulu, 4 pks. 8
Las Palmas, 20 2.6
Madeira, 131 10 c. 3 q. 881
Teneriffe, 23 19 1 141

Oxalic Acid—
Philadelphia, 9 t. 17 c. £224

Paint—
Bagota, 14 cs.
Barbadoes, 5 kgs. 2 cks.
Benguela, 30
Bilbao, 5 crts. 40 dms.
Cape Town, 100 / 72 / 2 cks.
Cartagena, 45
Coquimbo, 5
Genoa, 1
Guadalajara, 1
Havana, 10
Hong Kong, 305
Honolulu, 25 64
Iquique, 34
Lagos, 324
Larnaca, 12
Leopoldville, 39
Manaos, 8
Mollendo, 8
N. Orleans 18
Ponce. 21 11
Pt Said, 90
Rio de Janeiro, 675 dms.
St. John's, Nfd, 4 brls. 9 135
S. Thome, 9 cks.
San Francisco, 10
San Juan 4
Shanghai, 40 kgs.
Sierra Leone, 214
Taltal, 14
Valparaiso, 20 195 dms.
Vera Cruz, 2 cks.

Painters Colours—
Algoa Bay, 45 kgs.
Barcelona, 10
B. Ayres, 170 / 16 pks. / 30 cs. 2 cks.
Chicago, 75 brls. 20
Ghent, 8
Hamburg, 10
Honolulu, 450 2
Pernambuco, 5
Philadelphia, 1
St. Anne's Bay, 16 3
Valencia, 3 bxs.

Paraffin Wax—
Barcelona, 25 cs.
Para, 30

Phosphates—
St. Petersburg, 200 t. £750

Phosphorus—
Shanghai, 14 cs. £114
Tampico, 10 87

Potassium Bicarbonate—
New York, 2 t. 16 c. 2 q. £74

Potassium Chlorate—
Copenhagen, 3 t. £79
Gutujewsky, 30 89
Hiogo, 80 2,939
Kalmar, 2 10 c. 75
Konigsberg, 2 61
Libau, 4 18 153
New York, 1 33
Rouen, 2 60

Potassium Prussiate—
Genoa, 11 cks. £175

Red Oxide—
Nantes, 12 c. 2 q. £5

Salammoniac—
Alexandria, 2 t. 3 c. 2 q. £70
Beyrout, 1 10 48
Kustendjie, 13 20
Samsoun, 1 33
Smyrna, 1 33
Trieste, 1 35
Vera Cruz, 2 2

Salt—
Akassa, 168 t. 1 c.
Antwerp, 50
Baltimore, 99 16
Barbadoes, 467 12
Bombay, 20 cs.
Boston, 341
Brass, 30
B. Ayres, 25 13 100
Burutu, 187 16
Calcutta, 3 710
C. C. Castle, 12 10
Chama, 12 10
Chicago, 100
Christiania, 16
Conakry, 15
Egwanga, 40
Faroe Islands, 207
Gefle, 93 4
Ghent, 50
Gibara. 25
Guernsey, 300
Halifax, 165 15
Havana, 100 25 pks.
Jersey, 1 3
Johannesburg, 1 13
Lagos, 100
Landana, 12 10
M. Video, 85
Montreal, 924 12
Newcastle, 160
New York, 30
Neuvitas, 50
Old Calabar, 40
Opobo, 25
Quebec, 94
Rotterdam, 255
Rouen, 10
Santiago, 95
Shanghai, 25 cs.
Sherbro, 67
S. St. Paul's, 60
Stockholm, 336
Sydney, 335
Trinidad, 40

Salt Cake—
Antwerp, 240 t. £310
Baltimore, 75 9 c. 121
Leghorn, 100 210
New York, 6 9 97

Saltpetre—
Las Palmas, 5 t. 13 c. 2 q. £85
Syra, 1 6 2 98

Sheep Dip—
B. Ayres, 79 t. 4 c. £1,935
M. Video, 8 18 2 q. 250
Montreal, 2 cks. 16
New York, 1 t. 16 30

Soap—
Alexandria, 12 cs 9 brls.
Algao Bay, 99 bxs. 4
Antwerp, 13
Barbadoes, 1,814
Belize, 150
Bombay, 7,135 24
Boston, 1 ck.
Brussels, 1 800 1,800
Buenaventura, 14
Cairo, 60 20
Calcutta, 250 10 250 bdls.
C. C. Castle, 25 5
Cape Town, 3,083 81
Chama, 100
Colombo, 2 brls.
Curacao, 341
Delagoa Bay, 7 cs.
E. London, 1,475 20
Elmina, 100
Florence, 5
Gibraltar, 317 40
Gd. Bassa, 80
Gd. Canary, 62
Grenada, 70
Havana, 4
Honolulu, 50 2
Hong Kong, 80 400 dms.
Kingston, 1,543 2
Lagos. 50
Karachi, 40
Johannesburg, 121
Madras, 57
Manaos, 1,900
Meibitila, 6
Millilla, 50
Montreal, 2
Old Calabar, 1
Petit Goave, 61 pks.
Piræus, 25
Punta Arenas, 2
Quebec, 94 t. 2
Rangoon, 1,715 bxs.
Reunion, 500
Rotterdam, 399 5
St. John's, N'fd., 23
St. Kitt's, 100
San Fernando, 100
San Juan, 51
St. Lucia, 202
Shanghai, 9,238
Singapore, 2,839
Stockholm, 310
Teneriffe, 189
Toronto. 1,000
Trinidad, 1,300
Valparaiso, 300 100
Vera Cruz, 3

Soda—
Bari, 56 kgs. 3 cks.

Soda Ash—
Adelaide, 39 cks.
Antwerp, 50 bgs.
Baltimore, 120 19 tcs.
Bombay, 50 kgs. 20
Boston, 89
B. Ayres, 100 brls. 449
Calcutta, 100 kgs. 102
70 bgs.
Calmar, 150
Cheribon, 10
Christiania, 3
Copenhagen, 881
Gefle, 35
Genoa, 320
Gothenburg, 400 57
Hiogo, 5 3
Kingston, 11
Leghorn, 60
Libau, 200
Madras. 10
Maranham, 8
Melbourne, 72
Mitylene, 100
M. Video, 95
Montreal, 185 15
N. Orleans, 39
New York, 25
Norrkoping, 200 brls.
Nykoping, 20
Pasages, 19
Philadelphia, 10
Piræus, 50
Pt. Elizabeth, 76
Preston, 80
Reinosa, 16
Rio de Janeiro, 400 50
Sydney, 83
Trieste, 200
Truin, 202

Soda Crystals—
Barcelona, 35 bgs.
Boston, 280 cks.
Colombo, 11 brls.
Jaffa, 12
Kobe, 100 kgs
Malta, 75
M. Video, 200
New York. 140
Philadelphia, 140
Quebec, 130 pks.
Shanghai, 22
Smyrna, 50

Sodium Bicarbonate—
Adelaide, 50 bgs
Akyab, 7 kgs.
Alexandria, 100
Alicante, 70 8 cks
Ancona, 40
Antwerp, 50 16
Barcelona, 230
Batoum, 40
B. Ayres, 5 10
Calamata, 20
Calcutta, 34
Cartagena, 40
Christiania, 20 dms.
Cienfuegos, 20
Colombo, 7 brls.
Genoa, 100
Guernsey, 42
Gutujewsky, 500
Hamburg, 20 8 pks
Hiogo, 150
Karachi, 200
Konigsberg, 102
Libau, 80
Lisbon, 50
Madras, 75
Malta, 34
Marseilles, 20
M. Video, 50
Montreal, 2 cks.
Naples, 100
Newfairwater, 150
Odessa, 140 200 dms.
Para, 10
Patras, 30
Riga, 140 69
Rouen, 30 cks.
165 dms.
San Sebastian, 7
Santander, 67
Seville, 140 13 cks.
Singapore, 50 bgs.
Stettin, 25 kgs.
Sydney, 255
Tampico, 20

Sodium Carbonate—
New York, 56 brls.

Sodium Chlorate—
Boston, 100 kgs.
Fairwater, 30
Gutujewsky, 200
Newfairwater, 20 brls.
Rouen, 99
St. Petersburg, 100
Vera Cruz, 3

Sodium Naphthionate—
New York, 6 cks.

Sodium Prussiate—
Philadelphia, 26 cks.

Sodium Silicate—
Bilbao, 35 brls.
Las Palmas, 8
Warren, 10

Starch—
Copenhagen, 5 cks.
Maranham, 20 bgs.

Sulphur—
Boston, 275 t. 3 c. £1,211
Ghent, 6 26
Natal, 8 5 38

Sulphuric Acid—
Maranham, 1 t. 5 c. £20

Superphosphates—
Barcelona, 250 t. £704
Gd. Canary, 20 45
Teneriffe, 10 33

Tannic Acid—
Lisbon, 14 c. £55

Tin Crystals—
New York, 3 t. £194

Varnish—
Antwerp, 20 cks. 4 brls.
Barcelona, 7
Bilbao, 3
Bombay, 3 cs.
Cape Town, 2
Catania, 1
Durban, 6
Genoa, 2 7 pks.
Honolulu, 2
Iquique, 1
Las Palmas, 1 brl.
Leghorn, 2
Salt Pond, 1 cs.
Smyrna. 1 12 dms.

Zinc Chloride—
Bombay, 14 t. 5 c. £197
Genoa, 2 6 27
Varna, 10 9 161

MANCHESTER.

Week ending June 24th.

Alkali—
Tunis, 15 cks.

Ammonium Cyanide—
Canada, 1 ck.

Bones—
Treport, 996 bgs.

Caustic Soda—
Germany, 2 cks.
Tunis, 5 dms

Chemicals *(otherwise undescribed)*
Alexandria, 30 brls.
Beyrout, 20
Cologne, 5 cks.
Tunis, 5 5

Coal Products—
Alizarine
Alexandria, 2 cks.
Aniline Oil
Belgium, 2 dms.
Germany, 13
Aniline Salt
Alexandria, 2 cks.
Germany, 25
Anthracene
Germany. 23 cks.
Beta Naphthol
Belgium. 6 brls.
Carbolic Acid
Belgium 25 cks.
Naphtha
Treport, 20 brls.
Naphthol Salts
Germany, 40 cks.
Pitch
Belgium, 351 t. 17 c.

Colours—
Larnaca, 2 brls.
Copperas—
Alexandria, 938 brls.
Beyrout, 20
Tripoli, 30

Dyestuffs—
Indigo
Sfax, 2 cs.

Glycerine—
Treport, 20 dms.
Tunis, 1 cs.

Linseed Oil—
Beyrout, 13 brls.
Jaffa, 5

Magnesium Sulphate—
Alexandria, 100 kgs.

Naphthylamine—
Germany, 55 cks.

Paint—
Alexandria, 7 brls.
Beyrout, 21 kgs.
Caiffa, 12
Jaffa, 15 cks.

Painters' Colours—
Jaffa, 1 kg. 3 cs. 4 brls.

Potassium Bichromate—
Alexandria, 1 ck.

Red Lead—
Beyrout, 5 cks.

Salammoniac—
Beyrout, 18 brls.
Cairo, 20 cks.
Tunis, 1

Salt Cake—
Belgium, 70 t.

Soap—
Alexandria, 50 bxs.
Tunis. 1 cs.

Soda Ash—
Alexandria, 1 ck.

Sodium Bicarbonate—
Alexandria, 50 kgs.

Sodium Naphthionate—
Germany, 26 cks.

Starch—
Alexandria, 50 bxs.

Tallow—
Bombay, 20 brls.
Holland, 6 cks.

Turpentine—
Alexandria, 2 brls. 74 dms.
Beyrout, 2 2
Caiffa. 1

Venetian Red—
Alexandria, 140 cks.

HULL.

Week ending June 24th.

Alkali—
Riga, 500 cks. 110 pks.

Basic Slag—
Libau, 2,020 bgs.

Bleaching Powder—
Bombay, 40 cks.

Caustic Soda—
Antwerp, 26 cks.
Riga, 319 pks

Chemicals *(otherwise undescribed)*
Abo, 22 cks.
Amsterdam, 55
Bergen, 10
Bombay, 315
Boston, 161
Bremen, 10 pks.
Christiania, 10 756 slbs. 5 cs. 2
Copenhagen, 2 btls.
Danzig, 48
Hamburg, 15 190 cs.
Karachi, 57
New York, 1 9
Rotterdam, 69
St. Petersburg, 20 38
Stettin, 8 4 78
Venice, 5

Coal Products—
Pitch
Antwerp, 276 t.
Bordeaux, 10 cks.
Rouen, 50
Tar
Antwerp, 3 cks.
Christiania, 13
Copenhagen, 32
Dunkirk, 30
Rotterdam, 26
Wasa, 50

Cottonseed Oil—
Amsterdam, 15 t. 12 c.
Antwerp, 1 7
Christiansand, 1 15
Copenhagen, 4 8
Drontheim, 1 15
Dunkirk, 10 5
Ghent, 9 17
Hamburg, 21 4
Harlingen, 1 4
Konigsberg, 2 10
Rotterdam, 21 10
Rouen, 4 19
Stettin, 12 11

Dyestuffs *(otherwise undescribed)*
Bergen, 1 cs.
Boston, 10 cks.
Copenhagen, 1

Glue—
Gothenburg, 20 bls.

Linseed Oil—
Antwerp, 7 t. 10 c.
Bergen, 1 15
Bombay, 18 8
Christiania, 21 17
Christiansand, 1 15
Christiansund, 3
Drontheim, 18
Gothenburg, 10
Hamburg, 2 11
Karachi, 12
Rotterdam, 6 15
Stavanger, 1 8

Paint—
Antwerp, 14 cks. 1 hmpr
Pt. Said, 1 cs.

Painters' Colours—
Amsterdam, 8 cks. 42 dms.
Antwerp, { 235 / 56 cs. / 410 / 13 pks.
Bergen, 3 1
Bombay, 660 61
Bordeaux, 1
Boston, 9 20
Christiania, 55 1
Christiansand, 2 30
Christiansund, 15
Copenhagen, 9
Drontheim, 5
Dunkirk, 3 2 dms.
Fiume, 3
Ghent, 6 10
Gothenburg, { 5 / 1 / 4 / 40 pks.
Hamburg, 43 2 1
Harlingen, 1 200
Jersey, 2 6 1
Karachi, 120 1
Konigsberg, 29
New York, 124 38
Rotterdam, 3
Rouen, 8
St Petersburg, 120 1
Stettin, 17 5

Soap—
Amsterdam, 200 cs.
Ghent, 25
Rotterdam, 1
Rouen, 5 chts.

Starch—
Abo, 10 cks.
Copenhagen, 75 cs.

Tallow—
Amsterdam, { 31 cks / 25 cs.
Hamburg, 75
Rotterdam, 32
Stavanger, 20

Turpentine—
Antwerp, 15 cks.
Bombay, 15

Varnish—
Amsterdam, 3 cks. 1 cs.
Antwerp, 1 7
Bari, 2
Bombay, 125 1
Bordeaux, 1
Christiania, 2
Copenhagen, 3
Gothenburg, 2 dms.
Ghent, 2 pks.
Hamburg, 1
Rotterdam, 1
Stettin, 3 4
Wasa, 1

Waste Salt—
Amsterdam, 20 cks.

GLASGOW.

Week ending June 29th.

Ammonium Carbonate—
Christiania, £44

Ammonium Sulphate—
Barbadoes, 273 t. 2 c. 1 q.
Cheribon, 204 7 1
Demerara, 216 8 3
Rotterdam, 202 11 1
Samarang, 230 5 2
St. Kitt's, 26
Sourabaya, 358 17 2
Tegal, 51 1
Trinidad, 8

Anthracite—
Amsterdam, 108 t. 9 c.

Bleaching Powder—
Calcutta, 86 t. 19 c. 1 q.

Carbonate of Lime—
Lisbon, 2 t. 10 c.

Castor Oil—
Fremantle, £80

Caustic Soda—
Batavia, 11 t. 19 c. 2 q.

Chemicals *(otherwise undescribed)*
Calcutta, £41

Coal Products—
Alizarine Oil
Lisbon, £25
Aniline Dye
Kankinara, £27 10s.
Creosote Oil
Christiania, £4
Lisbon, 827
Pitch
Antwerp, £748
Bombay, 74 17s.
Canada, 194
Christiania, 20
Gothenburg, 148 10
Hongay, 1 977 t.
Venice, 1,200
Tar
Bombay, 61 t. 15 c.
Danzig, 94
Riga, £175

Cobalt—
Rotterdam, £208

Dyestuffs—
Logwood
Portugal, £20 16s.

Farina—
Rotterdam, £19

Glucose—
Christiania, 1 t. 9 c.

Iodine—
Rotterdam, £145

Lead Nitrate—
Rotterdam. £20

Linseed Oil—
Alexandria, 2 t. 5 c.
Demerara, 2 10
Fremantle, 1 4

Manganese—
Antwerp, £95
Rotterdam, 36

Paint—
Trinidad, £39 2s.

Painters' Colours—
Cape Town, £31
Delagoa Bay, 100
Demerara, 88 14s.
E. London, 84 17
U.S.A., 88

Paraffin Wax—
Cape Town, £98
Danzig, 20 t. 3 c.
Demerara, 26
Riga, 81

Potassium Bichromate—
Amsterdam, £144
Boston, 309
Canada, 3 t. 13 c.
Christiania, 26
Philadelphia, 313

Red Lead—
Singapore, £29

Soap—
Alexandria, 2 t. 2 q.
E. London, 2 10 c.
Penang, 2 10 1
Singapore, 6 16 2
Trinidad, 5

Sodium Arseniate—
Lisbon, 1 t. 7 c. 3 q.

Sodium Bichromate—
Canada, 10 c. 1 q.
Quebec, 5 t. 2 1

Starch—
Lisbon, £94 1 cs.
Rotterdam, 10

Sulphuric Acid—
Pt. of Spain, 41 t. 17 c.

Tin Crystals—
Lisbon, £30

Varnish—
Huelva, £24

White Lead—
Calcutta, £32
Delagoa Bay, 59
E. London, 46
Huelva, 16 cs. 23

TYNE.

Week ending June 24th.

Alkali—
Amsterdam, 11 t. 8 c. 2 q.
Riga, 50 7

Antimony—
Hamburg, 5 t.
New York, 30

Barium Carbonate—
Hamburg, 150 t.
New York, 52

Basic Slag—
Christiania, 18 c.

Bleaching Powder—
Aarhuus, 10 t. 19 c. 2 q.
Amsterdam, 14 3 1
Antwerp, 30 15 3
Christiania, 44 7
Copenhagen, 5 9 1
Gothenburg, 25 3
Drontheim, 10 3
New York, 60 5 2
Riga, 19 3 1
Rotterdam, 6 11
San Francisco, 10 3 2

Bromide of Barium—
Dunkirk, 5 t. 6 c.

Castor Oil—
Montreal, 33 t. 3 q.

Caustic Soda—
Aarhuus, 1 t. 9 c.
Antwerp. 24 13 1 q.
Christiania, 2 18
Genoa, 42 18 2
Gothenburg, 4 18 2
Helsingfors, 40 2 3
New York, 5 16
Rotterdam, 2 18
Uleaborg, 1 16 1
Venice, 29 1

Chemicals *(otherwise undescribed)*
Christiania, 2 t. 18 c.
Genoa. 2 13 1 q.
Montreal, 14 7 2

Coal Products—
Carbolic Acid
Odense, 12 c. 1 q.
Rotterdam, 5 t. 12
Naphthaline
Riga, 30 t. 8 c.

Colours—
Genoa, 8 c. 2 q.
Helsingfors, 1 1
Montreal, 3 t. 4 3

Ferro Manganese—
Gothenburg, 20 t. 11 c. 1 q.

Fluor Spar—
Copenhagen, 5 t.

Iron Oxide—
Genoa, 3 t. 6 c. 1 q

Litharge—
Amsterdam, 1 t. 1 c. 1 q.
Antwerp, 5 3 2
Christiania, 11 1
Hamburg, 1 7 2
Montreal, 5 1

Magnesia—
Antwerp, 1 c.
Genoa, 1 t. 5 3 q.
Hamburg, 3

Manure—
Valencia, 409 t. 16 c.

Mercuric Oxide—
Genoa, 5 c.

Orange Lead—
Genoa, 1 t. 1 c.
Montreal, 10 1 q.

Paint—
Antwerp, 9 t. 1 c.
Bergen, 6
Copenhagen, 1 12 2 q.
Genoa, 1
Gothenburg, 5 2
Hamburg, 12
Rotterdam, 16

Painters' Colours—
Hamburg 1 ck. 11 ms.

Red Lead—
Amsterdam, 1 t. 3 c.
Bergen, 2 7 1 q.
Christiania, 2 17 3
Copenhagen, 5 8 2
Genoa, 14 15 1
Gothenburg, 10 4 2
Hamburg, 13 6 2
Montreal, 10 12 3
Riga, 10 3

Salammoniac—
Genoa, 1 t.

Salt—
Christiania, 2 c.

Soda—
Amsterdam, 20 t.
Christiania, 10 6 c. 1 q.
Helsingfors, 18 3 3
Rotterdam, 33 13
Uleaborg, 4 1 1

Soda Ash—
Bergen, 10 t.
Hamburg, 50 3 c. 3 q.
Helsingfors, 128 6 3

Sodium Hyposulphite—
Montreal, 15 t. 3 c. 3 q.
San Francisco, 57 17 1

Sodium Silicate—
Gothenburg, 12 c. 2 q.

Sodium Sulphate—
Antwerp, 70 t.
Helsingfors, 315
Norsholm, 204 15 c.
Scutscar, 1,000

Sulphur—
Gothenburg, 45 t.

Tallow—
Genoa, 5 t. 5 c. 1 q.
Rotterdam, 5 11 3

Turpentine—
Genoa, 3 t. 7 c.

White Lead—
Helsingfors, 5 c. 1 q.
Montreal, 92 t. 3 1
Riga, 2 14

GOOLE.

Week ending June 21st.

Chemicals *(otherwise undescribed)*
Amsterdam, 10 cks.
Antwerp, 4 dms.
Dunkirk, 1 pk.
Hamburg, 23 5 cs. 7 crbys.
Rotterdam, 10 dms.

Coal Products *(otherwise undes.)—*
Amsterdam, 24 cks.
Antwerp, 7 1 cs 30 tins
Boulogne, 127 2
Dunkirk, 1
Hamburg, 4 1
Rotterdam, 50 1 7 dms.

Coal Products—
Pitch
Antwerp, 1,052 t.

Dyestuffs *(otherwise undescribed)*
Ghent, 1 cs. 3 pks.
Hamburg, 1 ck.

Farina—
Rotterdam. 1 ck.

Painters' Colours—
Amsterdam, 200 bgs.
Antwerp, 1 dm.

GRIMSBY.

Week ending June 24th.

Alkali—
Dieppe, 3 cks.

Caoutchouc—
Esbjerg, 2 cs.

Chemicals *(otherwise undescribed)*
Dieppe 12 cs.

Coal Products *(otherwise undes.)—*
Dieppe, { 233 brls. / 3 kgs. / 6 pks.
Hamburg, 15 btls.

Coal Products—
Pitch
Malmo, 16 brls.
Tar
Gothenburg, 5 brls.

Manure—
Hamburg, 667 bgs.

Painters' Colours—
Hamburg, 3 cks. 3 ms.
Rotterdam, 3 3

PRICES CURRENT.

WEDNESDAY, July 5, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	5	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	21	10	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	6	3
,, ,, (grey) Hull ,,	12	3	9
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4
Antimony per ton	39	10	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	42/6 to 65/-		
Bleaching Powder, 35 % nett ,,	4	2	6
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 2:/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London per unit	per cwt. 0	0	4
Benzol, 90's per gallon	0	0	8
,, 50/90 ,, ,,	0	0	8¼
Carbolic Acid (crude 60°) ,,	0	2	1
,, (crystallised 40°) per lb.	0	0	7¼
,, (liquid 95/97%) per gallon	0	1	0
Creosote (ordinary) ,,	0	0	3
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	6	0
Solvent Naphtha, 90% at 160° per gallon	0	0	10
Copper per ton	77	5	0
,, Sulphate ,,	25	10	0
,, Oxide (copper scales) ,,	57	0	0
Glycerine (crude) 80% ,,	25	10	0
,, (distilled S.G. 1250°) ,,	48	10	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	15	10	0
,, Litharge Flake (ex ship) ,,	17	0	0
,, Acetate (white ,,) ,,	22	0	0
,, ,, (brown ,,) ,,	17	15	0
,, Carbonate (white lead) pure ,,	18	10	0
,, Nitrate ,,	22	10	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) per ton	5	0	0
,, ,, (grey) (ex ship) ,,	8	0	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	2	10	0
,, Carbonate ,, per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate ,, per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	8
Oils:—			
Cotton-seed per ton	17	10	0
Linseed ,,	22	0	0
Stearine ,,	26	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	5	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	22	15	0
,, ,, ,, 75/80 % ,,	18	0	0
,, Potash Hydrate Liquid 50 % ,,	11	15	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	8
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	8	15	0
Silver (metal) per oz	0	2	3¾
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	0	0
,, ,, (Soda Crystals) ,, ,,	2	10	0
,, Acetate (ex-ship) ,,	12	15	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	7	12	6
,, ,, (74 % Caustic Soda) ,, ,, ,,	7	7	6
,, ,, (70 % Caustic Soda) ,, ,, ,,	7	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	6	0	0
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	3	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	8	0
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate ,, per lb.	0	0	6¼
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	6	6
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide ,,	7	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4¾
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	6	15	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	24	10	0
Tin Crystals per lb.	0	0	8
,, English Ingots per ton	125	10	0
Zinc (Spelter) ,,	25	5	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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LATE ADVERTISEMENTS.

UNIVERSITY COLLEGE, BRISTOL.
CHEMICAL DEPARTMENT.

Professor—SYDNEY YOUNG, D.Sc., F.R.S.
Lecturer—FRANCIS E. FRANCIS, B.Sc., Ph.D.
Demonstrator—D. H. JACKSON, M.A., B.Sc., Ph.D.

The SESSION 1899-1900 begins on October 3rd. Lectures on Inorganic, Organic, and Advanced Chemistry will be delivered during the Session. The Laboratories are fitted with the most recent improvements for the study of Practical Chemistry in all its branches. In the Evening the Laboratory is opened and Lectures on Inorganic Chemistry, at reduced fees, are delivered. Several Scholarships are tenable at the College. CALENDAR, containing full information, price 1s. (by post 1s. 4d.). For prospectus and further particulars apply to JAMES RAFTER, Secretary.

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CURRENT TOPICS.

DANGEROUS TRADES IN PARLIAMENT.

OF late considerable attention has been given to the consideration of dangerous trades in the House of Commons, more particularly in regard to lead poisoning in the Potteries, phosphorus poisoning in match manufacture, and bichromate works.

A good deal has been said on all three of these subjects of late, and we suppose more will be said in the future, so long as they prove such an excellent handle for political agitation. We should much like to know how active the gentlemen of the House of Commons would be on behalf of the employés if the interests of the latter were the one and only incentive to agitation?

We give a summary of the recent debate in the House elsewhere in this issue, in which it will be noticed that the complaints are for the most part answered, and there is evidence that some progress is being made to complete and enforce the new special rules. In regard to the strong personalities, which Mr. Burns associated with his complaints about the bichromate industry, the Home Secretary observed silence. Possibly Sir M. White-Ridley thought the charges against the Shawfield works had been disposed of in a satisfactory and sufficient manner in the answer which appeared in the JOURNAL about three weeks ago, or possibly he remembered the wise adage about arguing with—well with men who are soon parted from their money. Perhaps Mr. Burns would like the bichromate industry, in which we have held the supremacy for nearly 70 years, to go the same way as he wishes the lead-glazed potting trade to go. Knowing the speaker's reputation as the friend of labouring mankind we take it for granted that he is prepared to find fresh employment for the thousands he is going to throw out of work, in order to save their health.

THE STORAGE OF CORDITE.

Cordite may be a very great improvement on gunpowder, at least it ought to be, seeing the brains that have been "picked" to work out its invention, but it is open to question whether we have quite learned all it can do when it ought not to be doing anything, and it is, therefore, very natural that the Admiralty should be asked whether it was their intention to use the new magazines and storehouses now in course of building on the land adjoining Priddy's Hard Magazine for the storage of cordite and other high explosives. This, Admiral Field has done, and he also very pertinently asked what weight of cordite it was proposed to store; whether this decision had been arrived at after careful inquiry and report by a committee, and, if so, would the names of the committee be given, and was their report a unanimous one. In view of the near proximity of the magazine to Portsmouth Dockyard, and its certain destruction if a large quantity of cordite should explode at Priddy's Hard, there is, undoubtedly, wisdom in carefully weighing the advisability or otherwise of storing

such a high explosive as cordite in its immediate vicinity, particularly when we recall the disastrous explosion of the magazine at Toulon, and the unknown cause of the destruction of the *Maine* at Havana last year.

Admiral Field suggested that their lordships suspend the erection of the cordite magazine for the present, and consider the advisability of arranging with the War Office for the storage of cordite in one of the useless forts on Portsdown-hill, which could be readily approached by Porchester-creek; but this did not seem to meet with the approval of Mr. Goschen at all, so he shelved all the questions more or less on the grounds of "public policy," and particularly so in regard to the amount to be stored. He was, therefore, pressed to say if the quantity about to be stored would be sufficient to destroy the dock-yard if the cordite misbehaved itself unexpectedly. There was a certain amount of humour about Mr. Goschen's naïve reply. He did not think it was a question that could be ascertained. Well! not by practical application no doubt, but it is customary to calculate breaking strains and stress, and then build gigantic bridges and similar structures. Calculations, perhaps, mean too much study for our Explosives Department. Mr. Goschen seemed to think he had delivered himself of a most weighty *ultimatum* when he further intimated that "the Admiralty is responsible . . . he must ask the House to rely on the administration of the Admiralty." Yes, but the Admiralty headquarters are not situated just at Priddy's Hard. If they were we should feel more secure. The matter is to be brought up again. Till then we suppose there is nothing for it but to put our trust in the Admiralty as requested. This will not be wrong, we presume, since the Admiralty are neither "princes nor any child of man," being related, we believe, to the inhabitants of Mount Olympus.

LONDON INDIGO SALES.

THE third quarterly sale of the year commenced last Monday, with a declaration of 5,400 chests, of which about 200 chests have been withdrawn and not printed, leaving 5,200 chests to be brought forward, classified in comparison with the corresponding sale last year as follow :—

	1899. Chests.	1898. Chests.
Bengal	3,250	4,326
Oude	348	1,250
Bimlipatam	44	91
Kurpah	734	1,960
Madras and Vellore	275	347
Hoody and figs	471	414
Java, musters, etc	78	72
Total	5,200	8,460

Indigo continues to be offered in much smaller dimensions than the average, 5,200 chests being far below the total generally looked for in the July sales, but the supply is likely to be fully equal to the demand, excepting perhaps for the lower grades, which are becoming increasingly scarce. The selection of Bengal is an excellent one, comprising many coloury, desirable parcels chiefly valued from 3s. to 3s. 6d. per lb. There are also some good and fine shipping lots, but low and common are in reduced proportions. The few Oudes and Bimlipatam are of low, ordinary, and good qualities. Kurpah offers a restricted assortment, although several useful parcels are included. Dry leaf Madras gives a moderate supply of low to good middling, whilst the hoody and figs are of the usual descriptions. The market during the past quarter has been very quiet, with very little inquiry either from the home trade or the Continent. The crop reports at first indicated the probability of a full average yield, but the latest advices from Calcutta report excessive rains in some districts, and a reduction of estimates to about 125,000 maunds. There is generally an attempt to start a crop scare just prior to the July auctions, but bearing in mind the exceptionally heavy snowfall in the Himalayas last winter, there does seem to be a real danger of floods in the indigo-growing districts this year, which may result in a serious curtailment of production, but it is safe to predict that in any case there will not be the considerable advance which would have taken place under similar circumstances a few years ago. Shipments of Kurpah and dry leaf from Madras to London continue quite trifling, only 50 chests being despatched in June, against 400 to Suez and 400 to Japan, the last-named country being now a regular and important customer for this article. Deliveries: January 1st to June 30th, 1899, 6,350 chests; 1898, 7,324 chests. Stocks: July 1st, 1899, 13,127 chests; 1898, 17,878 chests.

The sale opened with a fair attendance of home trade buyers and a few Continental. There was practically no demand for the better qualities, but any medium and low goods which holders were willing to sell reasonably met with fair competition. Many of the parcels withdrawn were limited much above the ruling currency, in the expectation of improving demand and prices later in the year. Messrs. Millward and Co., of Manchester, quote:—Bengal: Good and fine, none sold; ordinary sold somewhat irregularly at par to 2d. decline. Oudes and Bimlipatam: Par to slightly easier. Kurpah: Previous rates. Madras sold well at a little below valuations. Hoody and figs: None sold. Sold 533 chests, bought in and withdrawn 2,117 chests, passed 2,650 chests, leaving 2,750 chests still to pass the sales.

The sale closed on Tuesday without any material change, holders generally showing no disposition to meet the market, and withdrawing freely. A few parcels of high-class were sold without reserve at 4d. decline; with this exception the currency established was par to 2d. below April rates. Passed to-day, 2,750 chests, of which 2,449 were withdrawn and 301 sold, making sold in auctions 834, to which have to be added 316 sold privately, giving a total of 1,150 chests disposed of. Prices realised:—Bengal, 2s. 2d. to 4s.; Oude, 1s. 9d. to 2s. 6d.; Kurpah, 1s. 8½d. to 2s. 6d.; Madras, 1s. 6d. to 1s. 9d.; Bimlipatam, hoody, and figs, none sold.

BAUXITE IN NEW SOUTH WALES.

THE immensity and variety of the mineral wealth of New South Wales have just received another illustration in the discovery, by officials connected with the Department of Mines in that colony, of vast deposits of bauxite, which, it may be mentioned, is a hydrated oxide of aluminium, and practically the only ore used in the arts for the manufacture of aluminium at the present time, having taken the place formerly occupied by cryolite. The ore invariably has a certain quantity of iron associated with it, and this metal is often present in sufficient quantity to cause it to be of value as an iron ore. In addition to iron, variable quantities of silica and titanic acid are nearly always found as impurities. The value of aluminium in the industrial arts is very great and rapidly increasing. In appearance it resembles silver, and is very malleable and ductile, approaching iron in tenacity, and capable of a high polish. Cheaper methods of reduction have enormously increased the demand for the metal within the last few years. In 1886 aluminium cost £2. 10s. per pound, and the production in the United States of America did not exceed 3,000 lb. In 1897 the metal could be obtained for 1s. 4½d. per pound, and the same country produced 4,000,000 lb. from bauxite ore. The process now in vogue is an electrolytic one, and the largest item in the cost of production is power —steam, water, or otherwise The ores from which aluminium is obtained are abundant in the mountainous country south of Sydney, also in the northern districts and elsewhere, but up to the present, notwithstanding the richness and immensity of the deposits, have remained unutilised. Samples of ore from Wingello, in the northern portion of the colony, were analysed by the New South Wales Mines Department, and found to contain a considerable percentage of alumina. It has since been ascertained that variously-tinted bauxite ores occur in enormous quantities in the district. In the southern country have been found iron ores containing a considerable quantity of alumina, and which in some respects resemble the ferruginous bauxites of Wingello, passing by insensible gradations of basalt. The bauxite deposits of Germany are said to result from the alteration of basalt. The American bauxite ores shown at the Chicago International Exhibition resembled somewhat the laterite ores found in the New South Wales tin-mining country, in one part of which the laterite formation has a superficial area of 11 square miles 577 acres and a thickness from a few feet to 40 ft. The bed consists at the surface of a red, dusty soil, passing downward into red, yellow, or grey tufts, and compact pisolitic ironstone, which, in their turn, graduate into rotten, spongy basalt. Through ignorance of its real character, the ore has been largely used for road-making purposes. Three samples of ore, on being analysed, were found to contain 58 31, 35·28, and 39 82 per cent. of alumina. The first sample is equal to any in the world, being richer than the bauxite ores of France, Austria, Ireland, and the United States, which at present constitute the leading sources of supply. Bauxite forms the source from which all the aluminium of commerce is produced, and, in view of the increasing demand for what is regarded as one of the greatest metals of the future, especially in connection with naval architecture, the discovery of practically inexhaustible beds of bauxite in New South Wales may be regarded as an event of the highest industrial importance.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Utilising Peat. G. Gercke. 13,222. June 26.

Improved Method of Distillation or Condensation and Apparatus therefor. J. Fischer. 13,225. June 26.

High Grade Albumen Preparation from Rape-seed and Rape-seed Cake. E. Fromm and T. V. Bredt. 13,252. June 26.

Composition for the Manufacture of Celluloid. J. Chaubert. 13,287. June 27.

Treating Cupric Sulphate Solutions. O. Hofman. 13,370. June 27.

Coke Ovens and Method of Operating the same. T. W. C. Schniewind. 13,325. June 27.

Consuming Smoke. E. Fales. 13 340. June 27.

Electrolytic Decomposition of Alkaline Salts. E. Edser and R. W. Weekes. 13,341. June 27.

Improvements in the Treatment of Wood. H. C. Williams. 13,423. June 28.

The Manufacture of Alkali-Calcium-Phosphate. J. Y. Johnson. 13,429. June 28.

Manufacture of Lactic Acid. Soc. Anon. des Manufac. et Prod. Chim. du Nord and E. Boullanger. 13,439. June 28.

Treatment of Zinc-bearing Complex Ores. F. C. Blythe. 13,547. June 30.

Manufacture of Slag Wool or Silicate Cotton. T. C. Hutchinson. 13,554. June 30.

Improvements in the Process of Tanning. C. O. Natusch. 13,563 June 30.

The Extraction of Bismuth from Ores containing Bismuth Oxide and Sulphide. J. Ronald. 13,615. June 30.

Separating Precious Metals from their Ores. The Golden Link Consolidated Gold Mines, Ltd., and H. J. Phillips. 15,672. July 1.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in Cells applicable for the Production of Chlorine, and Alkali Metal Amalgams, by Electrolytic Deposition of Solutions of Alkaline Chlorides. J. W. Kynaston, Oak-terrace, Beech-street, Liverpool. Eng. Pat. 15,967. July 21, 1897.

The cell, which is oblong, is built up of slate, or stone slabs, bolted and jointed in the same manner as hydrochloric acid tanks. The anode is placed vertically down the centre, and on the long sides a number of shallow troughs or shelves are fixed. The cathode mercury is supplied to the top-most shelf on each side, and flows downwards in a thin layer over each shelf, openings being provided at alternate ends to produce a zig-zag travel. Stops or ridges are placed before the exits to keep a constant depth of mercury in each trough, only the surplus passing forward. The solution of alkaline chloride is introduced as nearly at its boiling point as possible. It is claimed that a large cathode surface is thus presented, ensuring a more rapid electrolytic action. There are four figures.

A Process or Apparatus for Comminuting or Disintegrating Superphosphates. A. G. Brookes, 55 Chancery-lane, London (communicated by Chem. Fab. A. G. vormals Carl Scharff and Co., 10, Neue Taschenstrasse, Breslau). Eng. Pat. 9,260. May 2, 1899.

The warm superphosphate as it comes from the "dens" is carried by a conveyor to a hopper, which is situated tangentially to a revolving disc, enclosed in a suitable casing and carrying a number of V-shaped cutters or knives. These shave off thin slices of superphosphate, which, under the action of the draught caused by the rapidly revolving knife-disc, fall into a fine powder. The under side of the disc casing or jacket is removed and a number of deflecting plates substituted, which guide the superphosphate into the receptacle beneath, and also baffle the air current, and prevent it carrying the powder round with the disc as it revolves. The motion of the cutters must be quicker than the feed. There are three figures It is found that the powdered superphosphate so formed does not tend to "lump" on storing.

A Method of Obtaining and Utilising the Carbon Monoxide evolved in the Production of Calcium Carbide, and Apparatus for the Purpose. B. H. Thwaite, 29, Gt George-street, Westminster, and F. L. Gardner, 32, Old Jewry, London. Eng. Pat. 16,639. July 30, 1898.

The monoxide is utilised by blowing some of it from a gas-holder through the carbide furnace and returning it to the holder augmented by the monoxide evolved in the furnace. This furnace is really a modified gas-producer, fitted with an automatic feed and electrodes, to illustrate which there are three figures. To augment the yield of monoxide by preventing the accidental generation of acetylene, the monoxide is forced into the producer and kept at a slight pressure by throttling the exit or sealing the outlet with water or other suitable fluid. The bottom of the furnace or producer is a perforated carbon block attached to a hinge. This block thus forms one of the electrodes, and can also be swung back to let away the molten carbide when formed.

A New or Improved Alloy of Aluminium and Magnesium. A. G. Brookes, 55, Chancery-lane, London (communicated by Dr. L. Mach, Villa Brueninghaus, Kalaischestrasse, Jena, Germany). Eng. Pat. 24,878. Nov. 25, 1898.

The alloy is produced by fusing potassium chloride in a plumbago crucible, adding the aluminium, and heating until molten. The potassium chloride then forms a transparent layer on the aluminium and prevents oxidation. The magnesium is introduced in small lumps, and contents stirred until the magnesium dissolves. The best alloys are obtained with 10% up to 25% of magnesium. This yields an alloy of even lower specific gravity than aluminium itself, which is not the case with nickel or copper, &c., alloys, and at the same time all the difficulties of turning or working pure aluminium are obviated. It is claimed that a 10% magnesium alloy works like rolled zinc; a 15% alloy like foundry brass; a 20% alloy like soft red brass or hard drawn brass-wire; and a 25% alloy like ordinary red brass. Yet all these alloys are very ductile and can be forged cold, or drawn into tubes and wire.

Improvements in the Manufacture of Soap. James McNeill, St. Enoch Colour and Chemical Works, 38, French-street, Bridgeton, Glasgow. Eng. Pat. 17,842. August 19, 1898.

A soft soap suitable for wool-scouring and free from caustic is prepared by saponifying a mixture of refined tallow, and either fish, nut, or seed oil, with successive quantities of potash lye of increasing strength. When properly saponified the soap is run off into a pan, in which a quantity of soda crystals have been melted, equal to about 25% of the soap The mixture is kept stirred mechanically until cool, any perfume that is wanted is added, and also about 7 to 14 lbs. of lithopone white per ton of soap, which improves the colour.

GOLD OUTPUT IN THE RAND.

THE output from the Witwatersrand district during the past month (in bullion ounces), as cabled by the Chamber of Mines of the South African Republic, amounts to 445,763 oz., as against 444,933 oz for May and 344,670 oz for the corresponding month of 1898. From the outside districts 21,508 oz. are reported, as against 21,519 oz. for May and 20,421 oz. for the corresponding month last year. The total return, therefore, made to the Chamber amounts to 467,271 oz, as compared with 466,452 oz. for the previous month, an increase of 819 oz. The following are the monthly returns from the Rand district alone since the beginning of 1895:—

	1895.	1896.	1897.	1898.	1899.
	oz.	oz.	oz	oz.	oz.
January	177,463	148,178	209,832	313,826	410,145
February	169,295	167,018	211,000	297,975	404,335
March	184,945	173,952	232,067	325,907	441,578
April	186,323	176,707	235,698	335,125	439,111
May	194,580	195,008	248,305	344,160	444,933
June	200,941	193,640	251,529	344,670	445,763
July	199,453	203,873	242,479	359,343	—
August	203,573	213,418	259,603	376,911	—
September	194,764	202,561	262,150	384,080	—
October	192,652	199,889	274,175	400,791	—
November	195,218	201,113	297,124	393,310	—
December	178,428	206,517	310,712	419,504	—
Total	2,277,635	2,281,874	3,034,674	4,295,602	2,585,865

RECORDING IMPORTS AND EXPORTS OF CALCIUM CARBIDE.—A General Order has been issued by the Board of Customs directing that carbide of calcium be added to the official import and export lists. The Board also draws the attention of importers, exporters, and their agents to the requirement, which is at once to come into force, that in preparing their documents carbide of calcium must be specifically entered, and the weight in hundredweights and value stated.

THE SULPHATE OF AMMONIA PRIZE ESSAY.—The prize of 500 guineas offered by the Sulphate of Ammonia Committee for the best essay on "The Utility of Sulphate of Ammonia in Agriculture," has been awarded to Mr. James Muir, M.R.A.C., formerly Professor at the Royal Agricultural College, Cirencester, subsequently at the Yorkshire College, Leeds, and at present Instructor in Agriculture to the Somerset County Council. There were 73 essays sent in. The judges were Mr J. Bowen-Jones, of Shrewsbury, and Dr. J. A. Voelcker, of London.

SOCIETY OF CHEMICAL INDUSTRY.

ANNUAL GENERAL MEETING.

Wednesday, July 13th.—The *venue* this year was Newcastle-on-Tyne, which lends itself well as a centre for interesting excursions. This is evidenced in the programme, which, as usual, opened with the "business" meeting, on Wednesday, in the Chemical Theatre of the Durham College of Science, at 10-30 a.m. The election of officers resulted as follows:—President: Professor C. F. Chandler, M.D., Ph.D. (of New York). Vice-Presidents: George Beilby, R Forbes Carpenter, Professor F. Clowes, D.Sc., George E. Davis, John Heron, David Howard, Dr. C. A. Kohn, Ivan Levinstein, B. E. R. Newlands, Dr. Edward Schunck, F.R.S, Wm. Thorp, B Sc., and R. C. Woodcock. Ordinary Members of Council: Sir John Evans, K.C.B., F.R.S., Sir David Gamble, Bart., C.B., W. Winwood Gossage, E. Grant Hooper, Dr. Rudolph Messel, J. M. C. Paton, John Pattinson, Dr. Fred. B. Power, Sir Robert Pullar, Walter F. Reid, Dr. Wm. S. Squire, and E. C. C. Stanford. Hon. Treasurer: Samuel Hall.

REPORT OF THE COUNCIL.

The Council's report was adopted, as follows:—

We have the honour to report that the number of members on the register is 3,312, as compared with 3,185 at the last annual meeting During the year 299 new members had been elected, as compared with 311 last year. The loss has been 172, as compared with 152 last year. There have been 24 deaths: F. Andreasch; Edward Rider Cook; Ed. Brooke; Joshua Buchanan; Robert Cox, M.P.; George Foord; M Hargreaves; J. G. Heywood; Frank Livesey; Norman McCulloch; Adam Millar; Thos. Moore; Dr. E. F. Obach; P. K. Oushkoff; Thos. Owen, M.P.; Manning Prentice; Lt.-Col. H. E. Reynolds; John Riley, of Hapton; Sir Nathaniel Staples, Bart.; Prof. H. Trimble; W. A. Verel; Dr. Jno. F. Weightman; T. M. Wilkie; and J. R. Wylde.

The Council cannot allow this occasion to pass without referring to the great loss which the Society has sustained by the death of Mr. E. Rider Cook, who had been Hon. Treasurer since the commencement of the Society, President in 1890-91, and representative of the Society on the Board of the Imperial Institute. He was unable to be present at our meeting in Nottingham through illness, and died of cerebral hæmorrhage on August 21st. With untiring industry and courtesy he laboured for the good of the Society, and his genial presence and wise counsel are sorely missed. The Society has appointed his brother-in-law and partner, Mr. Samuel Hall, as Hon. Treasurer in his place, thus preserving continuity in the traditions of the office.

During the past session 89 papers have appeared in the Journal, as compared with 87 last year. The excess of revenue over expenditure, as may be seen from the Treasurer's statement in the last number of the Journal, amounted last year to £552. 15s. 7d., as compared with £737. 12s. 5d. the year before, though the gross revenue was nearly £240 more. There was an increase of £350 in Journal expenses, since there were 1,214 pages in the Journal, as compared with 1,064 in 1897—an increase of 15 per cent.; and the rest of the increased expenditure was divided between sectional and annual meeting expenses. At the beginning of this year the membership of the various sections was as follows:—London, 812; New York, 580; Manchester, 400; Scottish, 300; Liverpool, 260; Yorkshire, 200; Newcastle, 108; and Nottingham, 75.

In view of the desirability of the more frequent presence of sectional representatives at council meetings, it was resolved, in September last, to include all fares incurred for this purpose among sectional expenses. The Council notes with satisfaction that most of the chairmen and secretaries have from time to time been present at the meetings during the past session.

During last autumn the Council and the two committees charged with the care of the Journal gave long consideration to the quality of the paper, type, and ink used for printing the Journal, in which they received valuable assistance from Mr. C. F. Cross, with the result that this year's Journal has been printed with new brevier type and better ink, on a paper free from adulteration and approved by the highest authorities.

In August last, Mr. Oscar Guttmann attended officially on behalf of the Society at the International Congress of Applied Chemistry at Vienna. The next Congress will be held in Paris, in August, 1900, and the Council has appointed Mr. A. Gordon Salamon and Dr. R. Messel a committee to confer with the officials of the Congress with a view to secure a large representation of British applied chemistry on that occasion.

At the close of last year the attention of the Council was drawn to the recently published Report of the Committee appointed by the Treasury to consider the desirability of establishing a National Physical Laboratory. The President was asked to represent to the Royal Society the desirability of alloting seats on the governing board of the Laboratory to this Council, in view of the interest felt by the chemical industries in physical and electrical research. These representations had weight, for when the Government agreed to make a grant in aid, and approved the draft scheme of the Laboratory, this Council was called upon to nominate two members of the Board, and chose Mr. George Beilby and Mr. Walter F. Reid. The President and Council of the Royal Society accepted these nominations, and further nominated Mr. Beilby as a member of the Executive Committee.

In February a request was made by the New York Section for greater facilities for nominating representatives on the Council and voting at annual meetings. Thanks to the alterations in the Bye-laws made last year, the Council has been able to meet the views of the Section.

A new departure has been made this year in issuing the programme of the annual meeting in separate wrappers, in which upon occasion the ballot list would also be placed. On this occasion no ballot is required, as the number of candidates nominated does not exceed the number of vacancies to be filled.

The relations of the Society to chemical engineering and industrial research have been fully treated in the lecture given by the President to the London Section on April 24 and in the discussion thereon. The Council hopes that means will be found to give effect to the views expressed by the President, and thanks those who have already offered to subscribe towards establishing courses of lectures on chemical engineering.

The Collective Index has just been delivered to those who have subscribed for it. Our thanks are due to the Index Committee, and particularly to Messrs. Walter F. Reid, Wm. Thorp, and the Editor, for their valuable aid in correcting page proofs. Applications for copies of this work—which is not a digest of former indexes, but an entirely fresh compilation from the text by Mr. Renaut—should be addressed to the General Secretary.

THE NEXT MEETING.

London was selected as the place for the next annual meeting of the Society.

In connection with this matter Mr. Boverton Redwood (Chairman of the London Section) said: The year 1900 would be a memorable one, because it was the year of the holding of the great Exhibition in Paris, which would call together from all parts of the world a number of men of high distinction, and there could, he thought, be no question that the opportunity would be availed of to hold, in connection with that Exhibition, a considerable number of congresses of various descriptions. It was in the minds of the Council desirable that such action should be taken as would admit, if possible, of an active participation of that society in the work of the Congress to which he had alluded. He need not tell them that the Congress would have as its President Professor Berthelot, and as its Acting President Professor Moisson. The Congress was certain to attract a large amount of attention, and it was felt desirable that, through the medium he had indicated, communication should be opened up between the Society and the Acting President. He was not yet in a position to say what form the participation which they desired would take, nor could he say for certain whether it would be practicable to arrange for such participation; but he had it on the authority of Mr. Gordon Salamon—who regretted very much that he was unable to be present there that day—that Professor Moisson had received very favourably the proposition in question; and that there was good reason to believe that that Society would be formally invited to Paris next year. If that anticipation should be realised, it was obvious that the meeting next year would assume a somewhat unusual form—a form which could not fail to be pleasing to the well-wishers of the Society, and full of enjoyment to those who were able to participate in what was projected. He could not, as he had said, indicate with any degree of precision how such a desirable arrangement could be carried out. But he did wish to make one remark in reference to the subject, namely, that he hoped that, if they were able to give effect to what, as they would see, was in the minds of the Council in relation to this matter, the more serious side of the project, if he might so put it, would not be overlooked, and that members of the Society would in good time begin the preparation of papers suitable to be communicated to the Congress in question. He had only, therefore, to extend to the members of the Society a very cordial invitation to assemble next year in London, coupling with it an expression of the hope that, under the conditions which he had ventured to allude to—necessarily with great reservation—it might be practicable, immediately after the conclusion of the formal business of the Society, to adjourn to Paris.

THE PRESIDENT'S ADDRESS.

The President dealt mainly with the use of gaseous fuel and the economising of our fuel supplies. The substance of his address was as follows:—

The rapid exhaustion of the British coalfields and the serious increase of smoke pollution make it desirable that the questions of fuel and smoke should be treated simultaneously. Our stores of fuel are being

recklessly burned up, while the atmosphere, not only of the large cities, but also of the manufacturing districts outside of these, is being increasingly polluted. To place these questions in their true scale and proportion, it is desirable to allocate the total coal consumption of this country under various heads according to the purposes for which the coal is consumed.

The total coal consumed in the United Kingdom in 1898 was 157 million tons, of which—

76 million tons were consumed for the production of power for industrial purposes;

46 million for the production of heat for industrial purposes;

35 million for the production of heat for domestic purposes.

Taking the first two items more in detail, it is estimated that for the production of *power*—

Railways	consume	10 to 12 million tons.
Coating steamers	,,	6 to 8 ,, ,,
Mines	,,	10 to 11 ,, ,,
Factories	,,	38 to 40 ,, ,,

For the production of *heat* for industrial purposes—

Blast furnaces	consume	16 to 18 million tons.
Steel and malleable iron works	,,	10 to 12 ,, ,,
Other metallurgical works ...	,,	1 to 2 ,, ,,
Chemical works, potteries, and glass works... ...	,,	4 to 6 ,, ,,
Gas works	,,	13 to 15 ,, ,,

These figures give a general idea of the magnitude of the problem to be dealt with, and form a sound starting point from which to consider the various remedies which have been suggested. These remedies are broadly divided into two classes.

First—*Improved appliances for the combustion of raw coal, and distribution of the air supply in furnaces.*

Second—*The transformation of the raw coal into smokeless fuel by preliminary treatment, either by destructive distillation in gas retorts or in coke ovens, or by its conversion into fuel gas by partial combustion in air and steam.*

The distillation of coal in retorts, blast furnaces, and coke ovens was described generally. The amount of each of the crude products obtained from each source was given as below—

PRODUCTS FROM THE DISTILLATION OF COAL AS AT PRESENT CARRIED ON IN THE UNITED KINGDOM.

Gas works distil 13 million tons, and produce—

130,000 million cubic feet of illuminating gas at 650 B.T.U. per cubic foot;

650,000 tons of tar;

129,500 tons of sulphate of ammonia;

7 to 8 million tons of soft coke.

Blast furnaces distil 2 million tons of coal, and produce—

360,000 million cubic feet of fuel gas at 130 B.T.U. per cubic foot;

150,000 tons of tar;

18,000 tons of sulphate of ammonia.

Recovery coke ovens distil 1¼ million tons, and produce—

12,500 million cubic feet of illuminating or fuel gas at 600 B.T.U. per cubic foot;

62,000 tons of tar;

900,000 tons of hard coke;

11,000 tons of sulphate of ammonia.

If beehive ovens were entirely replaced by recovery ovens, there would be a further production of—

125,000 million cubic feet of illuminating or fuel gas;

620,000 tons of tar;

9 million tons of hard coke;

110,000 tons of sulphate of ammonia.

Collecting these figures together, we have from—

	Tar.	Sulphate of Ammonia
Gas works.....	650,000 tons.	130,000 tons.
Shale Oil Works ..	..	37,000 ,,
Blast furnaces	150,000 ,,	18,000 ,,
Recovery ovens ..	62,000 ,,	11,000 ,,
Present totals ..	862,000 ,,	196,000 ,,
After extension of recovery ovens ..	620,000 ,,	100,000 ,,
Probable totals	1,482,000 ,,	296,000 ,,

The effects of the natural development of these industries on the markets for bye-products were next considered. It was pointed out that, if any considerable part of the 137 million tons of coal which is at present burned in the raw condition were to be converted into gas—two, coke and ammonia—an altogether new condition of things would arise which would need to be foreseen and provided for. A careful study of the whole subject has led to the conclusion that the natural outlet for the coke and pitch would be found in the manufacture of fuel briquettes, and the President advocated the turning of the very best technical skill to the perfecting of this manufacture. He believed that, with skill and enterprise, it would be possible to make briquettes exactly suited for every purpose from boiler firing to domestic cooking.

The leading types of producer for the making of fuel gas were described, from the original "Siemens" to the most recent "Mond" producer.

Coming to the application of the various remedies, it was pointed out that it was now recognised by engineers that steam boilers could be economically and smokelessly fired either by careful hand stoking or by the modern forms of mechanical stoker. In support of this statement, the report of the Committee on Smoke Preventing Appliances, 1895, was quoted from as follows:—"Finally, the Committee are of opinion that, whilst future experiments and inventions may be the means of introducing new and better methods of treatment in the combustion of fuel, enough is known at present to enable steam users to work their boilers with a fair degree of economy and practically without smoke."

It was pointed out that, if the boilers at present in use, which are badly designed and built, were gradually weeded out and replaced by properly designed and built boilers, the burning the 57 million tons of raw coal used for steam rising would be accomplished practically smokelessly. Where small power installations were required, it would be better and more economical to replace steam by gas or electric motors. For railways and coasting steamers, an ample supply of smokeless briquettes could be procured by the extension of the coal distillation industries.

For metallurgical and chemical works of all kinds fuel gas is, in the majority of cases, the most suitable fuel, being smokeless and easily controllable. But he thought it unlikely that the average manufacturer would care to add to his capital expenditure as well as to his anxieties by erecting the comparatively costly plant which is necessary for the satisfactory gasification of raw coal. He thought the time was not far distant when centres for the production and distribution of fuel gas would be established in industrial districts. There was nothing to prevent the economical distribution of fuel gas to works within a mile or two of the producing station. If this were accomplished, the conditions of life in industrial localities would be enormously improved, and in time the smoke blots on the face of the country would be wiped out.

Coming to the 35 million tons of raw coal which is burned for domestic purposes, a good deal of attention was given to the present position of domestic gas firing and its relation to heating and ventilation. The desiderata appeared to be warmth, comfort, and ventilation equal to what is obtainable by the use of an open coal fire and at a cost not more than twice as great. It was pointed out that gas fire itself had been brought to a high standard of excellence, but that it generally suffered in efficiency owing to the unsuitability of its setting and surroundings. In this matter the co-operation of the architect and builder with the gas engineer is required, so that house chimneys and flues may be adapted for gas firing.

For domestic heating the fuel briquette, if properly adapted for that particular purpose, might play an important part in the displacement of raw coal and smoky combustion.

Having thus far shown the magnitude of the fuel and smoke questions in the various departments of industry, and also the various remedies which technical skill has placed at our disposal, the President concluded by inquiring briefly into the reasons why these remedies were being so slowly adopted. He suggested that the self-interest of the manufacturer, as well as his public spirit, need to be aroused. He advocated the application of gentle but uniform pressure for the adoption of smokeless methods on consumers of raw coal by a central authority acting under the Government, and instanced the gradual but steady improvement in the character of the emanations from chemical works which had resulted from the judicious administration of the Alkali Acts during the past thirty years.

As a means of bringing all of the different interests which are concerned in this matter into line, it was suggested that the Society might arrange for the holding of a conference on the subject of Fuel and Smoke, at which the leading technical societies, as well as the actual industries concerned, should be fully represented.

At the conclusion of the President's address the members inspected the college buildings; after which luncheon was served in the Grand Assembly Rooms.

In the afternoon a garden party was held in the Leazes Park, by the Right Worshipful the Mayor of Newcastle upon-Tyne, followed by a reception and conversazione in the Natural History Museum, by invitation of the chairman of the Newcastle Section (F. Stirling Newall, Esq., J.P.)

Thursday, July 13th.—The steamer *Siren*, from Newcastle, left Fish Quay at 9-30 a.m., to visit the works of the Wallsend Slipway and Engineering Co., Ltd., and see a demonstration with the Hon. Chas. A. Parsons' boat, the *Turbinia*, off the mouth of the river. Luncheon was served on board by invitation of the Reception Committee. A visit to Messrs. C. S. Swan and Hunter's shipbuilding yard followed. Light refreshments were kindly provided by Messrs. C. S. Swan and

Hunter, Ltd. A train left Central station, at 10·17 a.m., with a party who made the descent of Whitburn pit and inspected the limestone quarries on the coast. Luncheon was provided by the Harton Coal Co. The Durham Coke and Bye-Products Co., Lanchester, were also visited, the train leaving Central station at 8-40 a.m. to see the Simon-Carvé coke ovens and plant for recovery of bye-products. The company kindly provided light refreshments. The Elswick Ordnance Works and the Aerated Water Works of the Newcastle Breweries, Ltd., were also open for inspection.

In addition to the foregoing, the following places of industrial interest were visited, and the various processes inspected :—Messrs. Locke, Blackett, & Co, Dutch process of white lead manufacture ; Redheugh Works of the Newcastle and Gateshead Gas Co., mechanical charging of retorts and sulphur recovery in the Claus kiln ; Northumberland County Council's Experimental Farm, Cockle Park, near Morpeth ; Messrs. Maling's Ford Potteries ; Messrs. the United Alkali Company's Allhusen Works, the Chance sulphur recovery process ; Messrs. Palmer's Shipbuilding and Iron Co., Ltd., Jarrow ; the Newcastle and District Electric Lighting Co., Ltd., Forth Banks ; the Newcastle-upon-Tyne Electric Supply Co., Ltd., Pandon Dene ; the Northern Counties Ice Making and Cold Stores Co., Ltd., Quayside ; the *Newcastle Chronicle* Printing Offices, Westgate Road ; the Castle and Black Gate Museum could also be visited by kind permission of the Society of Antiquaries of Newcastle-upon-Tyne. In the evening the annual dinner of the society was held in the Grand Assembly Rooms at 7.30 p.m.

Friday, July 14th. As usual, this was the ladies' day, and the members went by special train to Rothbury to visit Cragside, by permission of The Right Hon. Lord Armstrong, who kindly entertained the members at luncheon. There was also a special train to Chollerford to visit the Roman station and bridge at The Chesters, by kind permission of J. B. Clayton, Esq., followed by tea at Chollerford.

IMPORTS AND EXPORTS FOR JUNE.

THE Board of Trade returns for the past month are more encouraging than they have been for some time past. The *imports* of chemicals and dyestuffs have been less, but the *exports* of alkali, manures, and salt show an improvement, while copper sulphate if less in quantity is much better in value.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE.

Articles.	Quantities. 1898.	1899.
Margarine ..... Cwt.	65,709	65,321
Copper Ore and Regulus..... Tons	12,484	14,260
Pyrites..... ,,	51,141	69,783
Tin ..... Cwt.	30,937	27,072
Alkali ..... ,,	29,657	22,165
Brimstone ..... ,,	54,010	44,283
Dyes, coal tar ..... £.	59,244	54,829
Saltpetre ..... Cwt.	23,727	22,490
Petroleum ..... Gall.	15,943,236	22,234,582
Turpentine ..... Cwt.	67,159	58,957
Guano..... Tons.	140	2,304
Nitrate of Soda ..... ,,	5,700	7,054
Paraffin Wax..... Cwt.	56,470	91,150
Rosin ..... ,,	181,232	155,291
Tallow and Stearine..... ,,	221,493	190,385
Tar..... Barrels	2,165	9,618
Oil Seed Cake ..... Tons	29,545	32,301
Wood Pulp..... ,,	31,755	44,330
Borax ..... Cwt.	34	58

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

Articles.	Quantities. 1898.	1899.
Alkali ..... Cwt.	278,797	314,645
Cement ..... Tons.	31,996	34,478
Coal and Coke ..... ,,	2,916,975	3,901,804
Copper, all kinds ..... Cwt.	80,756	87,077
Iron and Steel ..... Tons.	275,034	324,944
Chemical Manures ..... ,,	31,965	33,545
Oils, seed ..... ,,	3,289	3,131
Salt ..... ,,	71,815	77,776

Venezuelan Match Monopoly.—The Venezuelan Government has determined to lease the match industry, and a French company has made an offer for it, guaranteeing to the State an annual rent of 600,000 bolivars, and to buy out in gold existing manufacturers. The Crédit Lyonnais will be commissioned by the group to make this payment.

Parliamentary Jottings.

LEAD, PHOSPHORUS, AND BICHROME TRADES.

In the House of Commons last week, on the Vote of Supply for the Home Office, Sir C. Dilke complained that the report of the Chief Inspector of Factories and Workshops for 1898 had not yet been issued, and, believing that the excuses that had been offered for that delay were inadequate, he moved the reduction of the vote. Turning to the special reports that had been laid before the House on the use of lead and phosphorus in industrial operations, he said with regard to Messrs. Thorp and Oliver's report on the subject of lead poisoning that the ability and care they had brought to the investigation were worthy of all praise. An expectation had been held out that the report was to be made the foundation of a new departure, but the Home Secretary seemed now to be turning away somewhat from that view and becoming more satisfied with existing methods.

Mr. L. Holland, dealing with the regulations of the lead industry, was of opinion that no person under the age of 18 should be exposed at the outset to have his life blighted by the misfortunes incidental to this industry. He did not know that the time was ripe for prohibiting the use of raw lead, but in the meantime he urged the Home Office to insist that the special regulations which were applied to dangerous trades should be applied to the use of the raw lead process, and that at any rate the employment of young persons in this trade should be absolutely prohibited. It was not so much new legislation that was required as the enlightened administration of the powers of which the Home Office was already possessed. In the case of the use of yellow phosphorus, for instance, the Home Office did not employ the powers which it had in its hands. The hon. gentleman emphasised the importance of the question of inspection in dangerous industries. It was on inspection that the whole structure of the factory laws depended for their success. He suggested that the whole circumstances and conditions under which inspection was carried out might be a fruitful subject for inquiry by a Commission or Committee.

Captain Norton, speaking in reference to the match industry, suggested the desirability of preventing any person under 18 years of age being employed. He advocated an improved system of ventilation and greater stringency in the medical examination.

Mr. John Burns said that, so far as the lead and phosphorus trades were concerned, he would rather see them leave the country than that people should work under the conditions they did. But these were not the only trades that required greater supervision. If they wanted an illustration let them go to Shawfield Chemical Works, or read the powerful indictment of Kier Hardie against that champion hypocrite, Lord Overtoun, who praised God and built tabernacles while he overworked and underpaid his workpeople, who had to work under the most loathsome and insanitary conditions.

Sir M. White-Ridley regretted that the report was late, but said it was impossible to present a report of such an elaborate description as was necessary in the month of May, or even to be in the hands of members before the Home Office Vote was discussed. The main part of the debate turned on the reports relating to the potteries and the match-making industry, and he was asked what he proposed to do. He was certainly convinced that fresh special rules would be necessary, and in the meantime he had sent the reports of Drs. Oliver and Thorp to the manufacturers asking them for their opinions as to what they would suggest should be done, as he thought it was best to work with the manufacturers in any fresh rules that were proposed. While desiring to ameliorate the condition of the workpeople, they had to consider very many things, and could not act hastily ; but great progress had been made in the direction desired, and nothing should be wanting on their part to keep up that progress. He could not undertake to introduce a Bill this session.

On a division the amendment for the reduction of the vote was rejected by 115 votes to 35.

Sir R. Tangye on Trusts.—Few manufacturers know more of the conditions under which the industries of Great Britain are carried on than Sir Richard Tangye. The opinion of such a man on the subject of the competitive situation of Great Britain is therefore of interest and value. Sir Richard thinks that "Trusts are vile things. He hates Trusts from every point of view. America will one day awaken to the stern reality of the evil. Once the vileness of the evil has been fully realised, public opinion will be roused and some strong legislation must follow. As a strong admirer of the British workman, the British manufacturer, and the British business man, he thinks it is a pity that they are so slow to feel the shoe pinching. John Bull, speaking generally, looks at the silver medal too long, and forgets that his rival is after a gold one. He is content to dwell upon the gains of the past when he should be pressing forward. There are signs, however, that he is awakening, and these American Trusts are just what have shaken him up."

NOTES ON FOREIGN CHEMICAL TRADE.

BONE.

Phosphates. The quantity of phosphates exported last year were as follows :—

Country.	Quantity. Tons.
United Kingdom	70,655
France	60,322
Algeria	840
Italy	38,494
Germany	31,710
Russia	4,170
Holland	4,700
Spain	1,720
Austria-Hungary	1,694
Sweden	1,700
Japan	7,754
Total	223,760

An export duty on phoshates has been established since October, 1895, and amounts to 50 c. per ton extracted and not used in Algeria. This duty yielded in—

Year.	Amount. Francs.
1895	9,631
1896	71,549
1897	110,308
1898 (first ten months)	102,988

This yield must increase, notwithstanding the competition which the Algerian phosphates will have to cope with when the American mines recommence working, which were lulled during the Spanish-American War, and when the Tunisian phosphates appear in the market.

SYRA.

Acetylene.—A Greek engineer, Mr. Tsakonas, of Athens, has established in Syra a good-sized installation of acetylene gas, and the Municipality has already adopted it for lighting the public square, a few streets, and the market. The clubs, restaurants, and private houses are also taking it up gradually. The generator and fittings are of German make, and the calcium carbide is imported from Belgium. The present cost is 4 dr. 50 l. per cubic metre, equivalent to about 4s. 3d. per 1,000 feet of coal gas.

It is found an excellent illuminant, its steadiness and softness render it bright and cheerful and without any unpleasant effect on the eyes. Being a little cheaper than petroleum—the only other illuminant available here—there is in all probability a good future for acetylene lighting in this and other towns of Greece.

General Chemicals.—Among the principal articles imported last year were :—Pitch to the value of 58,370 drachmæ ; lead ores, 13,188 drachmæ ; colours in oil, 7,205 drachmæ ; soap in general, 8,861 drachmæ ; aniline colours, 98,729 drachmæ ; saltpetre, 113,584 drachmæ. The chief export article was valonia to the value of 528,383 drachmæ.

MILO.

The output of the mineral produce of Milo last year was somewhat higher than the preceding year, when the demand was very limited on account of the troubled state of the country after the war. The amount of *sulphur* exported to different Greek ports for the cultivation of vines was valued at 187,133 dr.

The *manganese* shipped to Great Britain and Belgium amounted to 16,320 tons, valued at 620,160 dr. ; *gypsum* estimated at 11.575 dr., was also disposed of in Turkey and Greece.

The working of the manganese mine at Fourkovuni Point, by the Black Point Syndicate Limited, came to a standstill last year, and the interests involved thereby are now being discussed in the law courts.

CORFU.

Valonia, to the value of £1,200. was exported in 1898 from Corfu to the United Kingdom. The imports, however, are of more importance, as the following comparative table shows :—

		Gt. Britain.		Austria.		Germany.		France.	
	Okes								
Indigo	,,	980	1,960	1,170	2,340	..	..	..	..
Other Dies	,,	..	..	640	256	..	..	..	..
Tannin	,,	2 100	2,100	1,040	1,040	..	..	..	..
Sulphur	,,	..	..	22,000	503	..	..	..	..
Alum	,,	1,900	380	3,050	610	420	84	1,750	350
Ochres	,,	1,475	738	1,280	640	1,325	660	970	475
Iron	,,	4,100	210	1,000	50	..	..	100	150
Copper	,,	1,180	1,770	350	525	..	..	..	..
Lead	,,	4,300	1,720	8,150	3,260	..	..	..	..
Steel	,,	1,400	2,800	2,370	4.740	..	..	..	..
Zinc	,,	5,200	2,600	..	..	..	..	2,400	1,200
Brass	,,	3 800	7,600	1,280	2,560	560	1,120	1,800	3,600
Aniline	,,	..	..	880	2,640	1,100	3,300	—	..
Starch	,,	585	292	510	255	..	..	..	..
Paraffin	,,	..	..	3,850	6,700	7,200	2,400	..	..

ZANTE.

Soda ash, principally shipped at Runcorn, and used for soap-making, was imported to the value of about £3,000.

Sulphate of copper is now in general use to check the peronosperos disease which has of late years attacked the vines ; a good deal comes from other Greek ports, originally shipped from Liverpool.

CEPHALONIA.

Imports.—The following is an abstract of the principal items of interest, the exports being of no importance :—

	1898 £	1897 £
Sulphur	6,300	6,500
Coals	1,000	1,200
Drugs	1,000	1,250
*Petroleum	3,650	3,250
*Salt	1,900	1,700
*Matches	1,300	1,100
Spirits (rectified)	1,300	125
Soap, perfumes, &c.	1,600	1,550
Oils and paints	1,500	1,550
Paraffin and stearine	1,750	1,500

* Government monopolies.

SALONICA.

Manganese and chrome ores.—The quantity of manganese ore shipped from Stratoni in the Gulf of Cassandra was about equal to that of the previous year. Most of this was taken by England and America. A fair quantity of chrome was exported, and a few tons of antimony and arsenic. The following are the figures :—Chrome ore 3,000 tons, compared with 500 tons in 1897 ; antimony 140 tons, against 400 ; arsenic 160 tons, against *nil* ; and manganese 31,500, compared with 30,000 tons.

At Uscub the chief imports were :—Chemicals and drugs £9,000 , of which England contributed £2,300., and Austria the balance ; soap £7,000. (£1,000. from England) ; oils £4,200 ; paints £4 500. In the exports, chrome ore again figures with £11,500., as against £14,000. in 1897, and was mostly shipped to England, Austria, and Germany.

TREBIZONDE

Chemicals.—The exports are not of an extensive nature, gall nuts and gums, 170 cwt. ; glue, 4,770 cwt., and linseed, 6,675 cwt., being the only items worth mentioning. The imports are of more importance :—

	1898.		1897.	
	Cwt.	£	Cwt.	£
Candles	1,155	2,080	870	1,740
Chemicals and drugs	1,045	3,400	630	2,690
Colours, dyes, paints, etc.	1,870	4 800	1,630	3,460
Copper	5,630	22,510	3,790	13,645
Limestone, cement, and tiles	16,050	2,610	11,800	1,665
Matches and vesias	3,850	3.465	4,690	4,045
Metals (lead, zinc, steel, etc.)	6,355	5,145	6,625	4,350
Olive oil	6,600	9,240	5,350	8,560
Petroleum	42,200	10,130	43,580	10,325
Salt	48,000	3,840	18,000	2,100
Soap	12,600	7,600	15,600	15,600

IRON ORE AT DOVER.—When the coal-boring was begun at Dover about six or seven years ago by Mr. F. Brady, on the site of the old Channel tunnel works and the present Kent Colliery works, there were indications in the cores of the presence of iron ore in the strata, between 500ft. and 600ft. from the surface. These indications have proved correct. In the course of sinking the No. 2 shaft a bed of valuable iron ore has been struck at a depth of rather less than 600ft. The seam proves to be 12ft. thick, and a washed sample of the ore on analysis yielded 45 8 per cent. of iron. The analysis shows that the ore is very free from sulphur and phosphorus.

TREATING MANCHESTER GAS RESIDUALS.—The Corporation Gas Committee, at their last meeting, presided over by Alderman Gibson, Deputy-Mayor of the city, considered the statements which were made by members of the firm of Messrs. Hardman and Holden, Ltd., with the object of persuading the Corporation to continue the present system of selling the gas residuals by contract. It was felt that the observations had not contained sufficient reason why the recent decision of the City Council should be abandoned. The Committee, therefore, resolved that it would be in the interests of the Gas Department and for the benefit of the citizens that the Council should go forward with their application for money to enable them to treat the ammoniacal liquor produced at the Corporation Gas Works.

Trade Notes.

The Hurter Memorial Lecture.—At a meeting of the Liverpool Section, Soc. Chem. Industry, held on March 16, 1898, it was unanimously decided to establish a Memorial to the late Dr. Ferdinand Hurter, in connection with the Society, as a recognition of his exceptionally able work in Applied Chemistry, and of his masterly investigations contributed to the Journal of the Society. It has now been decided that the Memorial shall take the form of a Hurter Memorial Lecture, associated with the Liverpool Section of the Society, and that the Lecture shall be given in alternate years on some subject connected with Applied Chemistry. This decision has received the sanction of the Council of the Society. In order to provide a suitable honorarium for the Lecturer, a sum of at least £300. is required. This sum will be vested in trustees appointed by the Liverpool Section, and the interest thereon will suffice for the expenses connected with the Lecture. The Lecturer will be chosen by the Committee of the Liverpool Section. With the consent of the Council, the Hurter Memorial Committee of the Liverpool Section appeal herewith to Members of the Society for help in raising the sum necessary for the endowment of the Lecture. From the preliminary list of subscribers we see £246. 9s. has been raised, so it should not be long before the desired sum is completed. Subscriptions may be sent to the officers of the Committee, viz, Charles A. Kohn, Esq., chairman, Eustace Carey, Esq, treasurer, T. Lewis Bailey, Esq., secretary.

Personal.—At a private meeting in Glasgow, on Thursday evening, of the Governing Body of the Glasgow University, a petition was presented by *Lord Kelvin* asking to be allowed to retire from the Professorship of Natural Philosophy. The petition was granted, regret being expressed at his lordship's retirement.

Messrs. A. Blain and Co.—On Wednesday night, the 12th inst., a most disastrous fire occurred in the agricultural works of Messrs. A. Blain and Co., at St. Louis, near Marseilles, by which the works were burnt to the ground, causing a loss of upwards of a million francs. The firm manufactures chemical manures on a very large scale, and are extractors of oils from seeds by means of bisulphide of carbon, to which the disaster is attributed.

Damages for Leaving Without Notice.—At Tiverton (Devonshire) Police Court, on Wednesday, Mr. Samuel Marsh, manager of the Exebridge Chemical Works (Bayliss, Jones & Bayliss), Morebath, made a claim on John Hagley, carter, Exebridge, for 50s. damages under the Employers' and Workmen's 1875 Act for quitting the Company's employ without notice. Mr. Loosemore, solicitor for Hagley, asked whether the manager who made the contract with the defendant was present, and on being answered in the negative said the prosecution must fail if they could not prove the contract. The Bench, however, decided to hear the case.—Mr. N. B. Marsh, assistant manager at the works, said the defendant was employed at 15s. per week, paid fortnightly, and was subject to 14 days' notice. On June 2nd he was insolent and witness gave him notice. He came to work the following day and drew his wages, but did not come any more. A man had to be taken from the works to fill his place, entailing considerable loss to the firm, a certain branch of work having to be stopped at the factory.—At the conclusion of the adjourned hearing the magistrates gave the plaintiffs 36s. damages and costs. Mr. Loosemore gave notice of appeal.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols keep firm, even though the business passing is small, with 90's 7¾d. to 8d. and 50'90's 8½d. to 8¾d. Carbolic acids are steady at 2s. 1d. for crude and 7¼d. crystals. Solvent naphtha is inclined to be a shade firmer, but crude keeps about the same. Pitch is firm at 30s. 6d. to 31s, f.o b. East Coast, and 25s. 6d. to 26s. West Coast. Creosote and anthracene unchanged.

Sulphate of ammonia is quiet, and prices still show a tendency to weakness. Beckton quotation has been withdrawn. The forward market is more or less at a standstill, both buyers and sellers being equally indifferent. Nearest prompt quotations are:—London outside makes, £12. 3s. 9d.; Hull, £12. 2s. 6d.; and Leith, £12. 2s. 6d. to £12. 3s. 9d. Nitrate of soda 7s. 10½d.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade there is a continued steady demand for all products, and prices, on the whole, are firm. Bleaching powder is inclined to advance, quotation now being £4. 5s., softwoods, free on rails; hardwoods for export, unchanged at £4. 15s. to £4. 17s. 6d. per ton, f.o.b. Chlorates are in the same position as for some time past, and prices remain at 3¾d. and 3½d. per lb. for soda and potash respectively. In ammonia alkali, 58%, makers are well engaged with orders, and price is firm at £3. 17s. 6d. bags, f.o.r. Caustic soda in all positions stands unchanged. Quotations f.o.b Liverpool, are as follow:—77% £7. 12s. 6d.; 74% £7. 7s. 6d.; 70% £7.; 60% £6. per ton. Soda crystals and bicarbonate in good request, and values are unaltered. Saltcake irregular owing to resales, at from 21s. to 25s. per ton, f.o.r. For vitriol and muriatic acid there is good general demand. Sulphate of copper has rather an easier tendency, and spot price is quoted £25. to £25 5s. f.o.b. Brown acetate of lime is quiet at £4. 17s. 6d. ex wharf. Grey, £8. per ton. Foreign white sugar of lead depressed at £22. 10s., c.i.f. Nitrate of lead steady at £22. per ton. Prussiate of potash firm at 8d. per lb., and there is good inquiry. Soda 6¼d. per lb. Bichromates unaltered. Nitrate of soda is quoted at 7s. 9d. per cwt. to 8s., according to quality. Muriate of ammonia is irregular, nearest price being £20. 15s. to £21. per ton. White powdered arsenic continues in good demand, and is quoted at £19. 5s. for best brands. Oxalic acid quiet. Tin and zinc salts are very firm, and prices have advanced.

REPORT ON MANURE MATERIAL.

The market has assumed a quieter tone, usual at this season, but prices for phosphatic material are firm all round. whilst those for nitrogenous material are steady. Quotations for mineral phosphates are unchanged, and the business reported is of a retail character. There is nothing reported in River Plate bones, prices required for cargoes for autumn shipment precluding business. There is rather more doing in East Indian bone meal for shipment at £5. 2s. 6d. to £5. 5s. per ton, according to quality. Nitrate of Soda is very firm in the forward position; but on spot it is rather easier, owing to arrivals, the quotations being 7s. 7½d. to 7s. 9d. per cwt. according to quality.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron: Scotch Warrants closed at 70s. 2½d., Middlesbrough, 70s. 0d., cash, and hematite, 75s. 3d. Copper quiet: Chili bars, G.O B.'s and G.M.B. s, closed at £77. 2s. 6d. to £77. 7s. 6d. cash; and £77. to £77. 5s. three months. Tin firm: Straits closed at £128. to £128. 10s. 0d. cash, and £129 5s. 0d. to £129. 15s. 0d. three months. Australian, £128. 15s.; English ingots, £131. 10s. Lead steady: Spanish, £14. 7s. 6d.; English, £14. 10s. Silesian spelter, ordinary, £26.; Nickel, 1s. 2½d. Antimony, £39. 10s. to £40. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 6s. 6d. *Copper Shares* steady: Cape, 4⅜ to 4⅛; Copiapo, 4 1/16 to 3 1/16; Libiola, 1¾ to 2; Mason & Barry, 3¾ to 4; Rio Tinto, 45 7/16 to 45 9/16; Tharsis, 8 to 8¼.

GLASGOW, Wednesday.—Market easy and idle. Scotch done at 70s. 8d. to 70s. 1½d cash, and 70s. 1½d. to 70s. 5d. month; buyers, 70s. 0½d. cash; sellers, 1d. more. Cleveland done at 70s. 2d. to 70s. cash, and 70s. 6d. to 70s. 3d. month; buyers, 69s. 11d. cash; sellers, 2d. more. Cumberland hematite done at 75s 5d. to 75s. cash, and 75s. 9d. to 75s. 4½d. month; buyers, 75s. cash; sellers, 75s. 1d.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is very quiet and business is almost at a standstill, offerings being small; values are fairly well maintained so far. Olive is strong and full quotations are the rule Linseed is rather quieter as regards demand, and sellers are freely offering Liverpool makes in export casks at 21s. 9d. to 22s. 6d. cwt. Cottonseed is firm, with Liverpool refined at 17s. to 17s. 6d. cwt. Castor oil is easier and business has been done (to arrive) in first pressure French at a reduction from last quotations; on spot, sellers still ask 2⅞d. for good seconds Calcutta, 2 9/16d. for French firsts, and 2¾d. for Madras. Tallow is well held, but transactions are not plentiful. Resin is fairly active in all grades at unaltered prices. Spirits of turpentine are firmer, now being quoted 33s. 6d., with a fairly good demand at that. Petroleum steady at 6½d. to 7¾d. for American, and 5⅝d. to 6¼d. for Russian refined.

CAKES.—There is a slightly firmer tone ruling in the market for American Western linseed, and a fairly good inquiry is experienced at rather better prices, the quotation being now given at £6. 6s. 3d. to £6. 11s. 3d., whilst Bombay, though firm, remain without quotable change at £6. 15s. to £7. per ton. Other imported descriptions remain quite nominal in value, with supplies wanted here. For Liverpool makes the tone is exceedingly firm, and the recent quotation is

very well maintained at £7. to £8. per ton, according to brand, though transactions continue on rather a small scale thereat. The demand for good to choice brands of American decorticated cottonseed is still rather quiet, but the tone remains steady, with sellers still quoting £5. 12s. 6d. to £6. 2s. 6d., according to quality, but Liverpool makes are in improved request at former currencies, viz., £6. 2s. 6d. to £6. 15s. per ton, according to brand. There is only a very moderate inquiry going on for Liverpool undecorticated makes, but previous prices are repeated at £4. 17s. 6d. to £5. 7s. 6d., according to brand; whilst Egyptian on the spot have a firm market, and with a fair inquiry sellers now ask £4. 10s. per ton for store lots.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

Business is already running down for the annual West of Scotland industrial holidays, when all the works cease production for a space, which at a minimum is about one week. The works of Glasgow and neighbourhood to-day are in process of this winding up, and by Friday mid-day all will have stopped and closed their doors, except to those craftsmen whose opportunity this is to overhaul the manufacturing plant and do needful repairs. Under these circumstances the market is divested of its ordinary exactitude of indications; but it is safe to take it that there is no great change imminent in any of the departments. Sulphate of ammonia is slowly losing, prompt Leith figure being £12. 2s. 6d. to £12. 5s. Very likely there is a seller or two at the lower mark. Nitrate of soda also is easier. Sulphate of copper is firmer, and has gained a little. Heavy chemicals are all unchanged in price and moderately in demand. Oils and paraffins also without new feature.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 7s. 6d., 70/72° £7., 60/62° £6., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 7s. 6d. to £5. 12s. 6d. nett, Tyne; saltcake, 26s 6d; borax, English refined, £16., and boracic acid, £25 nett, Glasgow; bicarbonate of soda, 5-cwt casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d nett, f.o.b. Glasgow); chlorate of potash, 3½d., less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 2s. 6d. to £12. 5s. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25. 10s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb.; paraffin spirit (naphtha), 9d. to 9½d. per gal; paraffin oil (burning), No. 1, 6¼d.; and crystal, 6¾d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £4. 15s. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were 177 barrels, and 3 bags beet, unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are quiet and the demand is only slow. Prices remain unaltered, and there seems to be no sign of any immediate improvement. Soda crystals are £2. 12s. 6d. per ton gross weight, locally. Sulphur, £4. 12s. 6d. per ton. Caustic 70%, £7., and 76/77% £8. per ton f.o.b.

Bleaching powder, softs, £5. 5s. per ton, nett; do., hards, £5. 10s. per ton, nett; caustic soda: 76/77% £8., and 70% £7. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. od. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. od. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—We have to report a fairly strong market, and with a full demand for best steam and gas coals. Bunker coals are slightly easier in price. Coke continues scarce and in strong request at 25s. to 26s. per ton. To-day's prices are:—Best Northumbrian steam, 12s. 3d. to 12s. 6d. per ton; second qualities, 11s. 3d. to 11s. 6d. per ton; small steam, 5s. 3d. to 5s. 6d. per ton; gas coals, 9s. 6d. to 10s. per ton; bunker coals, 9s. to 9s. 6d. per ton; coke, 25s. to 26s. per ton.

New Companies.

E. H. Jones & Co., Ltd.—CAPITAL £1,000. in £1 shares. This company has been formed to acquire and carry on the business of a paint, oil, colour, varnish and drug manufacturer and merchant, carried on by E. H. Jones, at Upper Milk-street, Liverpool, as E. H. Jones & Co. The number and qualification of the directors is to be fixed by the company. E. H. Jones is the first managing director, with £260. per annum, and he may appoint two other directors.

British Uralite Co., Ltd.—CAPITAL £300,000. in £1. shares. This company has been formed to acquire British Patent No. 4,628 of 1898, to acquire certain land at Ural, Russia, to enter into an agreement with the Uralite Synd., Ltd., and to manufacture and deal in Uralite and all other preparations of asbestos and other non-flammable and heat resisting substances. The subscribers to the memorandum of association are:—A. G. Salamon, 1, Fenchurch-E.C., consulting engineer; R. M. Harvey, 7, Mincing-lane, E.C., merchant; E. Hubbard, 4, St. Helen's Place, E.C., merchant; J. Young, 37, Lombard-street, E.C., gentleman; H. E. Golding, 99, Cannon-street, E.C., solicitor; W. W. Hargrove, 99, Cannon-street, E.C., solicitor; G. B. Colt, St. Benet Chambers, E.C., solicitor.

Hugh Wallace and Co., Ltd.—CAPITAL £25,000. in £1. shares. This company has been formed to acquire the business of Hugh Wallace and Co., and to carry on the business of chemical and general manufacturers, manufacturers of pharmaceutical, industrial and other preparations, oil, colour and varnish manufacturers, etc. The subscribers to the memorandum of association are:—Hugh Wallace, Dorset Hall, Merton, Surrey, chemical manufacturer; Robert A. Wallace, Dorset Hall, Merton, Surrey, chemical manufacturer; W. T. Bruce, 5, Fenchurch-street, E.C., manager; Wilfrid T. Allen, 5, Fenchurch-street, E.C., traveller; G. O. Roos, 167, Cromwell-road, S.W., solicitor; Percy J. Taylor, 11, Old Broad-street, E.C., solicitor; Francis R. Roberts, 11, Old Broad-st., E.C., solicitor. Registered office, 5. Fenchurch-street, E.C.

General Metal Reduction Co., Ltd.—CAPITAL £150,000 in £1. shares. This company has been formed to acquire from G de Bechi, of 17, Boulevarde la de Madeleine, Paris, the benefit of a certain existing invention relating to improvements in the method of treating complex ores, and to carry on the business of miners, smelters, refiners, and reducers of ores, coal and iron masters, engineers, chemical manufacturers, etc. The subscribers to the memorandum of association are: R. A Rucker, 85, Gracechurch-street, E.C, metal merchant; E. J. Abbott, 9, Bennett's Hill, Birmingham, chartered accountant; G. H. Cartland, Hazelwell Hall, King's Heath, barrister; J. Rowlands, 41, Temple Row, Birmingham, solicitor; C. Langton, Oakfield-road, Birmingham, accountant; H. Wilkinson, 56, Barker-street, Handsworth, solicitor's clerk; E. Rowlands, 41, Temple Row, Birmingham, solicitor.

Zabrat Oil Co., Ltd.—CAPITAL £50,000. in £10. shares. This company has been formed to adopt an agreement with C. S. Hunting to acquire the lease of certain oil territory known as plot No. 73, in the Romany and Sabountchi oil districts, near the town of Baku, in the Caucasus, formerly belonging to Mr. Shagidanoff, and carry on in Russia or elsewhere the business of miners and manufacturers of and dealers in oil, mineral, vegetable or animal substances, liquids, gases, etc. The subscribers to the memorandum of association are:—C. S. Hunting, Eachwick Hall, Dalton, Newcastle, merchant; W. J. Eltrincham, 110, Sydney Grove, Newcastle, clerk; J. Brunton, 3, Prior's Terrace, Tynemouth, ship surveyor; J. T. Pragnell, 18, St. George's Terrace, Newcastle, clerk; T. C. Stephenson, 5, Barrington Place, Gateshead, clerk; D. Graham, 107, High Park-road, Newcastle, clerk; J. Turnbull, Rose Cottage, Whickham, Newcastle-on-Tyne, clerk.

Yorkshire Indigo, Scarlet, and Colour Dyers, Ltd.—CAPITAL £400,000. in £1. shares (200,000 5½ per cent. cum. pref.). This company has been formed to acquire the following businesses, viz.:—William Kitchen and Co., Croysdale Brothers, William Walker and Co., Samuel Bennett and Son, The Kirkburton Dyeing Co., Pickles, Smithson and Pickles, Ltd, Edwin Turner, Smith and Horsfall, J. Longbottom and Co., J. & J. Longbottom, and Francis Davis, all carrying on business in Yorkshire, and to dye, bleach, manufacture, and finish cloth, yarns, warps, tops, slubbing and other materials, etc. The subscribers to the memorandum of association are:—G. W. Bennett, Oakville, Horbury, dyer; S. Smith, The Poplars, Alverthorpe, dyer; G. W. Pemberton, 19, St. John's Terrace, Leeds, dyer; F. Davis, Whitwell, Elland, dyer; T. J. Pickles, 8, Mornington Villas, Bradford, dyer; W. Croysdale, 12, Brunswick Place, Leeds, dyer; J. Kitchen, Springfield Mount, Leeds, dyer; J. S. Longbottom, Rockcliffe, Luddenden Foot, dyer; S. Okell, Overley, Langham-road, Bowden, drysalter; E. Turner, Dapper House, Wheatley, dyer. Registered office, 23, John William-street, Huddersfield.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending July 1st.

Acetic Acid—
Holland, 15 pks. R. W. Greeff & Co.
" 94 A. & M Zimmermann
Germany, 1 pk. Butler's Wf, Ld.

Acid—
Holland, 103 pks. Little & Johnston

Alkali—
France, 5 t. 6 c. J. Harrison
" 2 10 J. Barber & Co

Alumina Sulphate—
Holland, 15 pks. R. W. Greeff & Co.

Ammonia (Anhydrous)—
Holland, 73 pks. H. Lorenz

Ammonium Bromide—
Germany, 5 cs. R. W. Greeff & Co.

Ammonium Muriate—
Holland, 18 pks. H. Lorenz

Ammonium Phosphate—
Holland, 4 pks. Chemical Works

Antimony Ore—
Sydney, 4 t. Hale & Son

Arsenic—
Germany, 10 pks. Brit. Anti-Fouling C. & P. Co.

Barium Chloride—
Germany, 72 pks. Petri Brs.

Barium Sulphate—
Germany, 48 pks. J. L. Lyon & Co.
Belgium, 84 O'Hara & Hoar

Barytes—
Belgium, 33 pks. W. Harrison & Co.
Holland, 155 "
" 46 Taylor Brs.
" 100 J. Owen
Belgium, 300 Capes & Self
" 164 J. L. Lyon & Co.
Holland, 24 O'Hara & Hoar
Germany, 14 Steinhoff, Sons & Co.

Bleaching Powder—
Germany, 45 pks. J. M. Steel & Co.
Holland, 45 "

Bones—
Melbourne, 8 t C. M. Lampson & Co.
Sydney, 12 G. S. Yuill & Co.
" 8 Hicks, Nash & Co.

Boracic Acid—
Italy, 18 pks. Netherlands S. B. Co.

Caoutchouc—
France, 3 c. B. & F. Wf. Co.
Colon, 1 t. Hoare, Wilson & Co.
" 3 5 Prop. Bull Wf
Ceylon, 1 5 "
E. Indies, 1 15 "
Belgium, 5 15 "
" 1 L. & I. D. Jt. Co.
Colon, 3 5 Lewis & Peat
Thursday I., 14 McIlwraith, McEacharn & Co.
Zanzibar 17 Hale & Son
" 5 Forbes, Forbes, & Co.
" 10 Clarke & Smith
Ibo, 12 "
" 3 5 L. & I. D. Jt. Co.
Zanzibar, 1 5 "
Germany, 7¼ "
" 2 Major & Field
France, 5 4 H Johnson & Sons
" 7 Proctor Brs.
Straits, 5 W. Pope & Co.
Belgium, 11 15 Prop. Bull Wf.

Castor Oil—
Italy, 5 brls. A. Laming & Co.
France, 30 Beresford & Co.
" 10 C. Tennant, Sons, & Co.
" 27 Mordaunt Brs.
" 35 Lucas & Spencer's Wf.,
" 27 Phillips & Graves

Caustic Potash—
France, 30 pks. J. M. Steel & Co.
" 14 Petri Brs.
Germany, 155 J. M. Steel & Co.
" 19 South Devon Wf. Co.

Caustic Soda—
France, 9 t. W. H Carey & Sons

Chemicals *(otherwise undescribed)*
Germany, £12 A. & M. Zimmermann
" 50 Craven & Co.
" 97 L. & I. D. Jt. Co.
" 18 R. W. Greeff & Co.
" 12 D. T. Domeier & Co
" 19 Petri Brs.
" 6 Butler's Wf., Ld.
——— 1,600 S. C. Jones
Belgium, 26 John Cockerill Line
" 110 T. Palmer
" 20 C. Atkins & Nisbet
France, 19 Mory & Co.
Holland, 10 T. H. Lee
" 6 H. & G. Dutfield
" 12 H. Lorenz
" 200 H. Harkness

Citrate of Lime—
Italy, 46 pks. Thames S. T. & L. Co., Ld.
" 42 A. E. Piggott

Citric Acid—
Germany, 25 pks. A. & M. Zimmermann
France, 12 F. C. Devon & Co

Coal Products—
Naphtha
S. Russia, 6 cks. L. & I. D. Jt. Co.
Pitch
Sweden, 50 brls. Sieveking, Podmore & Co.
U. States, 34 cks. F. Gardner
Tar
N. Russia, 100 brls. Riccord Brs.
" 300 Dussek Brs & Co.
U. States, 1,250 T. Nickels & Co.

Colours—
Holland, 4 cks. O'Hara & Hoar
" 1 R. Bealz & Co.
" 145 bgs. C. S. Lovell

Cream of Tartar—
Italy, 25 pks. W. & C. Pantin
" 60 W. C. Bacon & Co.
" 1 T. H. Jones
" 5 C. Christophersen & Co.
Portugal, 10 B. & F. Wf. Co., Ld
Spain, 8 "
France, 2 "
" 5 M. Ashby, Ld.
" 35 W. C. Bacon & Co.
Holland, 32 Kirkpatrick, Barr & Co.

Cryolite—
Denmark, 4 pks. Bailey & Leetham,

Dyestuffs—
Alizarine
Holland, 13 pks. G. S. N. Co.
Aniline
Holland, 2 pks. M Benscher
Argols
Italy, 1,743 pks. B. Jacob & Sons
" 37 Thames S. T. & L. Co,
Cutch
Straits, 100 pks. L. & I. D. Jt. Co.
Extracts
France, 30 pks. Beresford & Co.
Canada, 55 Boutcher, Mortimore & Co.
Denmark, 1 London Parcels Delivery Co.
Indigo
Germany, 15 chts. L. & I. D. Jt. Co.
" 26 3 srns. Lewis & Peat
" 71 Parsons & Keith
Holland, 12 "
" 1 J. Barber & Co.
" 5 brls. M. Benscher
E. Indies, 11 pks. J. W. Cook & Co.,
Colon, 17 srns. Mancha & Co.
E. Indies, 18 chts. Parsons & Keith
Myrabolams
E. Indies, 600 pks. W. Shelcott & Sons
" 1,400 Marshall & French
Saffron
Spain, 1 pk. Major & Field
" 1 C. Brumlen & Co.
Shumac
Italy, 9,800 pks. J. Kitchen, Ld.
Tanners' Bark
Melbourne, 63 t. Fisher, King & Co.
Natal, 54 Bullard, King & Co.
Adelaide, 51 H. Devitt & Co.
" 30 Baxter & Hoare
Melbourne 200 Escombe Brs. & Co.
Belgium, 11 Leach & Co
Turmeric
E. Indies, 2 pks. H. A. Litchfield
" 127 L. & I. D. Jt. Co.
" 178 Parry & Co.
" 34 Clarke & Smith
" 127 G. & H. Green
Thursday I., 4 H. Devitt & Co.

Valonia
Holland, 26 t. T. Pearson & Co.

Farina—
France, 4 pks. Mory & Co.
Germany, 100 J. Barber & Co.
" 50 R. G. Hall & Co.
" 5 Butler's Wf., Ld.
" 200 R. Bennett & Co.
Holland, 200 "
" 50 J. Barber & Co.
" 50 F. Beck
" 100 Dunlop Brs. & Co.
U. States, 27 Taylor Brs.

Glucose—
U. States, 1,380 pks. 8,262 c. R G. Hall & Co.
" 200 1,220 L. & Til.
L. C. & D Co.
" 100 583 A. E. Piggott
" 50 300 Page, Son & East
Germany, 25 204 M. D. Co.
France, 400 402 L. Norman & Co., Ld.

Glue—
Belgium, £425 G. E. Banes
" 30 T. H Lee
" 23 Leach & Co.
" 720 Becker & Wagner
France, 292 Mory & Co
" 100 W. J. Davies & Sons
" 1,330 T. M. Duche & Sons
" 425 Burnett Brs. & Sons
" 232 J. Harrison
Germany, 111 L. & I. D. Jt. Co.
" 28 M. D. Co.
" 600 Deering & Robottom
Holland, 25 G. S. N. Co.
U States, 110 Armour & Co.

Glycerine—
Italy, £2,390 J. W. Cook & Co.,
France, 310 H. Hill & Sons
Brisbane, 300 L & I. D. Jt. Co.

Gutta Percha—
Straits, 3 t. 12 c W. Pope & Co.
" 25 Prop. Bull Wf.
" 30 H. W. Jewsbury & Co.
" 14 2 L. & I. D. Jt. Co.
Demerara, 2 14 "
Belgium, 3 5 H. Kiver & Co

Iron Oxide—
Germany, 5 pks. H. Lambert

Lead Acetate—
Germany, 14 pks L. & I. D. Jt Co.
" 100 R. W. Greeff & Co.

Litharge—
Germany, 8 pks. J. Owen

Lithopone—
Holland, 20 pks. Taylor Brs.
Austria, 20 "

Manure—
Sydney, 5 t. G. S. Yuill & Co.

Methyl Alcohol—
U. States, 3,034 g. H. Wallace & Co
France, 550 Stein Brs.
" 240 Lister & Biggs
" 4,601 E. Catlin
Belgium, 1,987 "
" 1,100 J. Norrenberg & Co.

Molasses—
U. States, 400 cks. 2,254 c. J. Forsey
" 500 brls. 3,102 L. & I. D. Jt.

Ochre—
Spain, 100 pks. Vokins & Co., Ld.
U. States, 151 Corticene Floor Covering Co.
France, 8 Becker & Wagner
" 40 W. Harrison & Co.
" 5 Burnett Brs & Sons
Holland, 16 Phillipps & Graves

Paraffin Wax—
U. States, 1,199 pks. Anglo-American
250 cs. Oil Co.

Phosphates—
France, 100 t. W. E. Cole

Phosphates (Acid)—
U. States, 100 pks. Seaward Brs., Ld.

Phosphoric Acid—
Germany, 4 pks. Argo S. S. Co.

Potash—
France, 1 pk J. Norrenberg & Co.

Potassium Bromide—
Germany, 500 pks. Bessler, Waechter,

Potassium Carbonate—
France, 5 t. 5 c. Petri Brs.
Holland, 1 10 "
Germany, 25 10 "

Potassium Chlorate—
Sweden, 25 pks. G. Boor & Co.

Potassium Permanganate—
Germany, 156 pks. R. W. Greeff & Co.

Potassium Prussiate—
France, 50 pks. J. Owen

Pyrites—
Bossnio 1,150 t. Davies, Jones, & Co.
Portland, 596 Mason & Barry, Ld.

Red Lead—
Germany, 32 pks. Taylor Brs.

Rosin—
Germany, 13 brls. B. & F. Wf. Co.,
Belgium, 50 J. Watt & Son
U. States, 3,282 T. Nickels & Co.
" 2,432 Moore & Hole
" 600 F. Claydon & Co.

Salicylic Acid—
Germany, 35 pks. Butler's Wf., Ld.

Saltpetre—
Germany, 100 cks P. Hecker & Co.
Belgium, 100 bgs J. M. Steel & Co.
India, 1,120 Lucas & Spencer's Wf.

Soda Ash—
Belgium, 275 t. R. Waters

Soda Crystals—
Belgium, 6 t. Leach & Co.

Sodium Acetate—
Germany, 10 c. Butler's Wf., Ld.

Sodium Hyposulphite—
Holland, 10 t. R. W. Greeff & Co.
Germany, 3 12 c. H. Lambert

Sodium Nitrate—
Chile, 15,455 bgs. W. Montgomery & Co.

Starch—
U. States, 150 pks. C. Tennant, Sons,
" 100 Fellows, Morton, & Co.
Holland, 70 G. S. N. Co.
" 20 Phillipps & Graves
" 870 A. Starck
" 1,366 Little & Johnston
" 100 Hernu, Peron, & Co.
" 80 Robinson, Roberts, & Co.
France, 600 W. E. Cole
" 64 A. C. Hitchcock
" 600 E. & T. Pink
" 45 L. Mendelsohn
Belgium, 280 C. Tennant, Sons, & Co.
" 100 J. Barber & Co
" 300 Becker & Wagner
" 1,181 T. H. Lee
" 72 Leach & Co.
Germany, 640 Horne & Co.
" 6 Butler's Wf., Ld.
" 270 Seaward Brs., Ld.
Canada, 1,550 R. G. Hall & Co.

Stearine—
Germany, 5 cks. Craven & Co.
Belgium, 6 bgs. J. Harrison
" 63 H. Hill & Sons
Brussels, 25 "
France, 420 G. Boor & Co.

Sulphur—
Italy, 27 t. J. Kitchin, Ld.
" 18 Hyslop & Symonds
" 200 B. Jacob & Sons
" 50 W. Scott
" 43 A. B. Curtis & Co.
" 30 G. Boor & Co.
" 13 Davis & Soper
" 10 F. Smith
" 15 Union Ltge. Co., Ld.
" 10 F. C. Devon & Co.
" 10 J. Puddy & Co.
" 550 Fuerst Brs.
" 1 A. B. Roberts & Co.

Tallow—
Sydney. 129 cks. C. A & H. Nichols
" 35 J. R. Francis & Co.
" 492 Goad, Rigg, & Co.
" 45 N. Z. L. & M. A. Co.
" 120 Aust. Meat Co.
" 314 G. S. Yuill & Co.
" 86 Hoare, Wilson, & Co.
" 459 Phillipps & Graves
" 30 J. W. Cook & Co., Ld.
" 38 Beresford & Co.
N. Zealand, 1 N. Z. L. & M. A. Co.
" 39 Brown & Elmslie
" 75 Beresford & Co.
" 88 H. Hill & Sons
" 150 Phillipps & Graves
" 35 J. R. Francis & Co.
" 42 Dalgety & Co., Ld.
" 31 J. Groves
" 3 Culverwell, Brooks, & Co.
" 133 Goad, Rigg, & Co.
" 30 Union Ltge. Co., Ld.
Germany, 5 T. Oertell
Argentine, 339 Phillipps & Graves
Belgium, 6 T. Ronaldson & Co.

Melbourne, 177 Sawer, Sons, & Co.
" 28 J. Ferry & Co.
" 437 Phillipps & Graves
" 125 pps Elkan & Co.
" 52 A. B. Curtis & Co.
Queensland, 79 cks. Goad, Rigg, & Co.
" 169 Dalgety & Co., Ld.
" 44 N. Z. L. & M. A. Co.
" 105 G. S. Yuill & Co.
" 130 Cuthbert & Hall
U. States, 249
" 5 Armour & Co.
" 16 — Dutfield
Holland, 2 Phillipps & Graves
" 30 Sheppy Glue & Chemical Co.
Brisbane, 446 Anning & Cobb
" 24 J. Greig
" 122 Bessler, Waechter, & Co.
" 125 Elkan & Co.
" 318 Phillipps & Graves
" 26 Union Ltge. Co., Ld.
Rockha'ton, 108 Beresford & Co.
France, 138 bgs. H. Hill & Sons

Tannin—
Germany, £90 R. W. Greeff & Co

Tartar—
Italy, 29 pks. Thames S. T. & L. Co., Ld.
" 44 B. Jacob & Sons

Tartaric Acid—
France, 23 pks. F. C. Devon & Co.
Holland, 29 Kirkpatrick, Barr, & Co.

Tin Oxide—
Holland, 1 pk. Robinson, Roberts & Co.

Ultramarine—
Holland, 28 pks. W. Harrison & Co.
" 7 J. Barber & Co.
" 2 Phillipps & Graves
Germany, 27 Steinhoff, Sons, & Co.
Belgium, 10 J. Harrison
" 23 Leach & Co.
" 2 W. Harrison & Co.

Varnish—
France, 1 pk. Mory & Co.
Belgium, 2 T. H. Lee
Holland, 3 Phillipps & Graves
U. States, 23 Taylor Brs.
" 21 Atlantic Transport Co.

White Lead—
Holland, 40 pks. Randall Brs.
" 56 M. Ashby, Ld.
" 20 Kerestedji & Co.
Belgium, 57 T. & W. Farmiloe, Ld.
" 16 J. L. Lyon & Co.
Germany, 31 S. Barrow & Bro.
Austria, 12 M. Dk. Co.

Wood Pulp—
Sweden, 720 pks. Alsing & Co., Ld.
" 250 Tough & Henderson
" 484 W. G. Taylor & Co., Ld.
" 3,871 W. D. Cork
" 10 Henderson, Craig, & Co.
U. States, 258 W. G. Taylor & Co., Ld.
" 436 Linoleum Manufacturg. Co.
Germany, 610 E. J. & W. Goldsmith
" 52 Becker & Wagner
N. Russia, 585 W. D. Cork
Holland, 254 Netherlands S. B. Co.
" 33 W. G. Taylor & Co., Ld.
" 150 A. E. Reed & Co.
Canada, 560 Becker & Co.
" 2,672 Furness, Withy, & Co.

Zinc Oxide—
Holland, 75 pks. J. Matton
" 50 Soundy & Sons
Belgium, 200 Fellows, Morton, & Co.
U. States, 200 M. Ashby, Ld.
Germany, 50 Prprs. Dowgate Dk.

Zinc White—
Holland, 40 pks. Spies Brs. & Co.
" 20 J. Barber & Co.
Germany, 10 J. Owen
" 2 H. Lambert

LIVERPOOL.

Week ending June 29th.

Acetate of Lime—
New York, 1,247 bgs.

Antimony—
Antofagasta, 270 bgs. Gregory, Lawson, & Co.

Antimony Ore—
Mollendo, 124 sks. A. Aramayo & Co.

Barytes—
Antwerp, 150 bgs.
Rotterdam, 100

Bones—
Cadiz, 73 bgs.
Caldera, 22 sks. Schurvanny & Co.
Coquimbo, qty.

Borax —
Iquique, 6,277 bgs. / 8 brls.

Chemicals *(otherwise undescribed)*
Hamburg, 3 cs.

Colours—
Antwerp, 13 cks.
Hamburg, 1 cs.
Havre, 4 cks. Cunard S. S. Co.
Rotterdam, 11 / 5 cs.

Cottonseed Oil—
New York, 10 cs.
Pensacola, 1,499 brls.

Cream of Tartar—
Barcelona, 6 brls.
Bordeaux, 48 cks.
St. Nazaire, 1

Dyestuffs—
Cutch
Rangoon, 750 bxs.
Extract
Bordeaux, 200 cks.
Havre, 43 Cunard S.S Co.
St. Nazaire, 110
Logwood
Laguna de Terminos, 30 t. Oetling Gebruder
Myrabolams
Bombay, 1,935 bgs.
Orchella
San Francisco, 232 bls.
Quebracho
Hamburg, 270 bgs.
Saffron
Valencia, 2 cs.
Tanners' Extract
New York, 200 brls. McArthur & Co.
Turmeric
Bombay, 78 bgs. Aldrigde, Salmon, & Co.

Dyewood Extract—
New York, 230 brls. McArthur & Co.
Philadelphia, 150

Glucose —
Baltimore, 800 brls.

Glue—
Naples, 100 bgs.
St. Nazaire, 28 cks.

Logwood Extract—
Hamburg, 20 cs.

Manganese Ore—
Coquimbo, 750 t. Balfour Williamson
R. de Janeiro, 3,800 Bolckow, Vaughan, & Co.

Manure—
Rangoon, 707 bgs.

Mica—
New York, 18 brls.

Molasses—
N. Orleans, 1,000 brls.

Nevada Soda—
San Francisco, 1 sk.

Nitrate—
Rotterdam, 19 cks.

Paraffin Wax—
New York, 1,125 brls. Thompson & Bedford
Philadelphia, 150

Pyrites—
Huelva, 4,796 t. Mathieson & Co.

Red Lead—
Rotterdam, 21 cks.

Rosin—
New York, 1,899 brls.

Salt—
Cape Howe, 250 bgs.
Lahou, 202 pks. C. Francaise & Co.

Soap—
Boston, 3 cs. / 26 brls.
N. Orleans, 1,020
Naples, 197 cs.
Philadelphia, 2,000 bxs.
Seville, 26 cs.

Soap Stock—
New York, 1,030 brls.

Soapstone—
Bordeaux, 600 bgs. Geo. G. Blackwell, Sons & Co., Ld.
Rio de Janeiro, 30 sks.

Soda —
Antwerp, 1 ck.

Sodium Nitrate—
Antofagasta, 15,597 sks.
Pisagua, 1,906 bgs. Premitira Nitrate Co., Ld.

Starch—
Antwerp, 276 cs.
Baltimore, 799 bgs.
Boston, 180 sks. Colby & Co.
Hamburg, 120 cs.
Rotterdam, 100 Brown, Geveke, & Co.

Sulphur—
Catania, 200 bls. / 100 bgs. / 34 cks.

Tallow—
Boston, 136 brls.
New York, 38 bbds. / 150 tcs.
San Francisco, 100 cks.
Sydney, 1 brl. 1,371 cks. Lever Brs., Ld.
Zarate, 195 pps. J. Nelson & Sons, Ld.

Tartaric Acid—
Bordeaux, 4 cks.
Rotterdam, 2

Ultramarine—
Rotterdam, 16 cks. / 2 cs.

Waste Salt—
Hamburg, 500 bgs.

White Lead—
Rotterdam, 7 cks.

Zinc Oxide —
Antwerp, 108 brls. / 2 cks.
Rotterdam, 7

MANCHESTER.

Week ending July 1st.

Acetic Acid —
Rotterdam, 10 btls.

Chrome Acid—
Hamburg, 3 cks.

Coal Products—
Alizarine
Rotterdam, 44 cks.
Aniline Salt
Rotterdam, 4 cks.

Colours—
Antwerp, 10 cs.
Hamburg, 1 ck. 30
Rotterdam, 38 38 / 75 brls. / 6 bxs.

Cream of Tartar—
Rotterdam, 20 cks.

Dyestuffs—
Extract
Rotterdam, 16 cks.
Rouen, 3

Gelatine—
Rouen, 4 cs.

Glucose—
New York, 49 brls.

Glue—
Antwerp, 4 cks. 6 bls.
Rotterdam, 3 / 40 bgs.
Rouen, 40 31 cs. 20 / 32 cks.

Glue Stock—
Hamburg, 110 bgs.

Litharge—
Rotterdam, 23 cks.

Lithopone—
Rotterdam, 4 cks.

Nitrite—
Rotterdam, 8 cks.

Paraffin Wax—
New York, 715 brls.

Potash—
Rotterdam, 30 cks.

Potassium Carbonate—
Hamburg, 20 cks.

Potassium Chlorate—
Gothenburg, 20 cks.

Potassium Permanganate—
Hamburg, 20 cks.

Potassium Prussiate—
Rouen, 4 cks.

Rhodanfarium—
Hamburg, 9 cks.

Red Lead—
Rotterdam, 18 cks.

Rosin—
Brunswick, 5,010 brls. Smith & Forest
New York, 400

Soap—
Hamburg, 1 cs.

Sodium Acetate—
Rouen, 12 cks.

Sodium Sulphate
Hamburg, 5 cks.

Starch—
Antwerp, 785 cs.
Hamburg, 50 cks.
N. York, 2,250 bgs. / 270 brls.
Rotterdam, 275 cs.

Sulphuric Acid—
Rotterdam, 10 cks.

Tannic Acid—
Hamburg, 1 ck.

Tannin—
Hamburg, 8 cks.

Tan Extract —
Rouen, 10 cks.

Tartar—
Hamburg, 12 cks.

Tartaric Acid—
Rotterdam, 30 kgs. / 32 cks.

Ultramarine—
Hamburg, 10 cs.

Waste Salt—
Hamburg, qty.

White Lead—
Antwerp, 4 cks.
Rotterdam, 12

Wood Pulp—
Drammen, 1,154 bls.
Gothenburg 650
Helsingfors, 82

Zinc Oxide—
Antwerp, 2 cks. 40 brls.
Rotterdam, 60

HULL.

Week ending July 1st.

Barytes—
Amsterdam, 133 cks. Hull & Netherlands S. S. Co.
Antwerp, 44 Bailey & Leetham, Ld.
" 50 bgs. Wilson, Sons, & Co., Ld.
Bremen, 22 cks.
Rotterdam, 100 bgs Hull & Netherlands S. S. Co.

Bones—
Amsterdam, 1 bg. Hull & Netherlands S. S. Co.

Castor Oil—
Antwerp, 27 brls.

Chemicals *(otherwise undescribed)*
Antwerp, 4 cks.
Christiania, 15 Wilson, Sons, & Co., Ld.
Rotterdam, 2 Hull & Netherlands S. S. Co.
1 cs.

Coal Products —
Alizarine
Rotterdam, 134 pks. / 6 cks. / 10 brls. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 176 pks. Hull & Netherlands S. S. Co.
13 cks.
Creosote Salt
Rotterdam, 7 cks. Hull & Netherlands S. S. Co.
Tar
Libau, 63 brls.
Rotterdam, 1 Hull & Netherlands S. S. Co.

Colours—
Antwerp, 38 cks. Wilson, Sons, & Co., Ld.

Dunkirk, 6 cks. Wilson, Sons, & Co., Ld.
Hamburg, 6 cs. ,,
Rotterdam, 27 / 10 brls. / 40 pks. Hull & Netherlands S. S. Co.
Stettin, 25 cks. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Dextrine—
Harlingen, 10 bls. Hull & Netherlands S. S. Co.

Dyestuffs—
Indigo Extract
Rotterdam, 1 brl. Hull & Netherlands S. S. Co.
Myrabolams
Bombay, 1,206 pckts.
Valonia
Smyrna, 652 bgs. / 250 t.

Farina—
Harlingen, 50 bls. Wilson, Sons. & Co., Ld.
,, 250 Hull & Netherlands S. S. Co.
Stettin, 300 bgs.

Glucose—
New York, 600 brls.

Glue—
Christiansund, 1 ck. Wilson, Sons, & Co., Ld.
Rotterdam, 20 bgs. Hull & Netherlands S. S. Co.
Rouen, 56 bls.

Glue Stock—
Hamburg, 110 bls. Wilson, Sons, & Co., Ld

Lithopone—
Hamburg, 8 cks. Wilson, Sons, & Co., Ld.

Nitrate—
Hamburg, 754 bgs. Wilson, Sons, & Co., Ld.

Ochre—
Dunkirk, 78 cks. Wilson, Sons, & Co., Ld.
Rouen, 33 ,,
,, 99

Potash—
Antwerp, 62 pks. Wilson, Sons, & Co., Ld.
Dunkirk, 7 cks. ,,
Gothenburg, 20 kgs. ,,

Rosin—
Savannah, G.A., 7,000 brls.

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.

Soap—
Amsterdam, 49 bxs. Hull & Netherlands S. S. Co.
Boston, 19 cs.
Rotterdam, 1 ck. ,,

Sodium Silicate—
Antwerp, 100 brls. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 40 cs. Hull & Netherlands S. S. Co.
50 bgs.
Antwerp, 80 cs. Bailey & Leetham, Ld.
,, 105 bgs. Wilson,
40 cs. Sons, & Co., Ld.
Bremen, 3,222 pks. Veltmann & Co.
Ghent, 156 cs. Wilson, Sons, & Co., Ld

Stearine—
Amsterdam, 6 bgs. Hull & Netherlands S. S. Co.

Tallow—
Boston, 780 trcs. Wilson, Sons, & Co., Ld.
Dunkirk, 173 cks. ,,
New York, 190 brls ,,

Tartaric Acid—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

Turpentine—
Libau, 49 brls.
Savannah, G.A., 307

Ultramarine—
Bremen, 40 cks. Sissons Brs. & Co.
,, 10

Waste Salt—
Hamburg, 378 bgs.

White Lead
Amsterdam, 13 cks. Hull & Netherlands S. S. Co.
Antwerp, 24 Bailey & Leetham, Ld.
Ghent, 36 Wilson, Sons, & Co., Ld.
Rotterdam, 12 Hull & Netherlands S. S. Co.

Wood Pulp—
Abo, 69 bls. J. Good & Sons
Christiania, 95 pks. Wilson,
2,093 bls. Sons, & Co., Ld.
Gothenburg, 822 ,,
Hango, 80 J. Good & Sons
,, 60

Zinc White—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending July 6th.

Acetone—
Hamburg, 10 dms.

Alcohol—
Boston, 120 brls.

Ammonium Sulphate—
Amsterdam, 1 pk. J. Rankine & Son

Barium Sulphate—
Antwerp, 72 cks. / 300 bgs.

Barytes—
Rotterdam, 90 cks. J. Rankine & Son

Chemicals *(otherwise undescribed)*
Antwerp, 29 cks.
Hamburg, 1 / 8 cs.
Rotterdam, 3 cks. J. Rankine & Son
4 cs.

Coal Products—
Alizarine
Rotterdam, 174 cks. J. Rankine & Son
1 cs. 30 brls,
Aniline
Amsterdam, 1 ck. J. Rankine & Son
Rotterdam, 38 3 cs. ,,

Cobalt Ore—
Russia, 50 t.

Colours—
Hamburg, 5 cks. / 1 cs.
Rotterdam, 4 cks. J. Rankine & Son
2 cs. 25 pks.

Cottonseed Oil—
New York, 467 brls.

Cream of Tartar—
Bordeaux, 9 cks.

Dyestuffs—
Extract
Baltimore, 60 brls.
Indigo Extract
Rotterdam, 2 cks. J. Rankine & Son

Farina—
Hamburg, 100 bgs.

Glucose—
Baltimore, 100 brls.
New York, 997 brls.

Glue—
Hamburg, 55 bgs.
Rotterdam, 140 J. Rankine & Son

Nickel Ore—
Russia, 3,643 t. Nickel Co.

Painters' Colours—
Antwerp, 8 cks. / 2 cs.

Phosphates—
Antwerp, 9 cks.

Potash—
Antwerp, 1 ck.
Hamburg, 22 dms.
Rotterdam, 64 cks. J. Rankine & Son

Rosin—
New York, 800 brls.
Savannah, 2,236

Salt—
Hamburg, 1,250 bgs.

Saltpetre—
Hamburg, 45 cks.

Soap Stock—
New York, 150 brls.

Sodium Sulphate—
Rotterdam, 1 brl. J. Rankine & Son

Spirits of Turpentine—
Savannah, 1,000 brls.

Starch—
New York, 1,100 bxs.

Stearine—
Amsterdam, 61 bgs. J. Rankine & Son
Boston, 31 brls.

Strontian—
Rotterdam, 3 cks. J. Rankine & Son

Tallow—
Baltimore, 57 brls.
Boston, 4 pks.

Tartaric Acid—
Rotterdam, 12 cks. J. Rankine & Son

Varnish—
New York, 10 brls.

Waste Salt—
Hamburg, 1,350 bgs.

White Lead—
Rotterdam, 70 pks. J. Rankine & Son
106 cks.

Wood Pulp—
Christiania, 196 bls.
Drammen, 2,617
Gothenburg, 421 161 rolls

Zinc Oxide—
Antwerp, 26 cks.
New York, 260 brls.

TYNE.

Week ending July 1st.

Antimony Ore—
Tampico, 868 bgs. Cookson & Co.

Barium Chloride—
Hamburg, 250 bgs. Tyne S. S. Co.

Barytes—
Antwerp, 200 bgs. Tyne S. S. Co.
Hamburg, 8 cks. ,,
Rotterdam, 534 bgs. ,,

Castor Oil—
Antwerp, 54 brls. Tyne S. S. Co.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. W. Swanston & Sons
Hamburg, 120 cks. Tyne S. S. Co.

Colours—
Hamburg, 20 cks. Tyne S. S. Co.

Glue—
Antwerp, 3 bls. Tyne S. S. Co.

Phosphates—
Antwerp, 400 t. Langdale's Chemical M. Co.

Soap—
Rotterdam, 8 cs. Tyne S. S. Co.

Stearine—
Antwerp, 6 bgs. Tyne S. S. Co.

Superphosphates—
Antwerp, 1,000 bgs. Tyne S. S. Co.

Tartaric Acid—
Rotterdam, 2 cks.

Wood Pulp—
Arendal, 800 bls.
Stavanger, 40 P. H. Matthiessen & Co.

Zinc Oxide—
Antwerp, 31 brls. Tyne S. S. Co.
Rotterdam, 20 cks. ,,

Zinc Sulphide—
Hamburg, 20 cks.

GOOLE.

Week ending June 28th.

Alkali—
Calais, 2 cks.

Antimony—
Boulogne, 5 cks.

Barytes—
Antwerp, 105 bgs. / 20 cks.
Hamburg, 20

Caoutchouc—
Boulogne, 4 cks.

Coal Products—
Naphthol
Antwerp, 1 ck.

Colours—
Amsterdam, 1 ck. 1 cs.
Boulogne, 3 5 36 pks.
Hamburg, 25 1
Rotterdam, 312 58

Dyestuffs—
Fustic
Antwerp, 647 pcs.
Indigo
Rotterdam, 4 chts.

Farina—
Hamburg, 750 bgs.

Glucose—
Hamburg, 27 cs.

Glue—
Boulogne, 3 cks. 1 cs.
Dunkirk, 4
Rotterdam, 60 bgs.

Ochre—
Dunkirk, 43 cks.

Phosphates—
Dunkirk, 170 t.
Ghent, 868 bgs.

Potash—
Calais, 59 cks.
Dunkirk, 20 dms.
Hamburg, 2 20

Quebracho Extract—
Antwerp, 20 brls.

Saltpetre—
Rotterdam, 70 bgs.

Starch—
Ghent, 377 cks.

Waste Salt—
Hamburg, 736 bgs.

GRIMSBY.

Week ending July 1st.

Barytes—
Hamburg, 1 ck.

Caoutchouc—
Hamburg, 11 cs. 1 pk.

Chemicals *(otherwise undescribed)*
Hamburg, 2 cks. 6 pks.
Rotterdam, 10

Colours—
Antwerp, 14 cks. 84 pks.
Hamburg, 121 104
Rotterdam, 10

Farina—
Hamburg, 150 bgs.

Glue—
Hamburg, 6 cks.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending July 5th.

Ammonia—
Barbadoes, 558 bgs. £650
Durban, 10 c. 10 cs. 44
Sydney, 6 18

Amm nia (Anhydrous)—
Cologne, 23 cyldrs. £62

Ammonium Carbonate—
B. Ayres, 8 c. £65
Bremen, 1 t. 31
Hamburg, 10 cks. 30
Libau, 1 t. 31
Rangoon, 27 cs. 66
Rotterdam, 14 cks. 30
Rouen, 2 t. 60
Yokohama, 5 133

Ammonium Muriate—
Christiania, 2 t. 11 c. £48
Cologne, 17 cks. 29
Melbourne, 2 t. 5 40
Ammonium Sulphate—
Barbadoes, 50 t. 1 c. £659
Hamburg, 30 360
Bleaching Powder—
Durban, 5 c. £7
Bone Ash—
Melbourne, 10 c. £25
Boracic Acid—
Yokohama, 2 t. 10 c. £62
Borax—
Durban, 1 t. 5 c. £50
Melbourne, 2 14 104
Carbonic Acid Gas—
Channel Is., 55 tubes £21
Hamburg, 12 flasks 58
Caustic Potash—
B. Ayres, 10 c. £32
Caustic Soda—
Delagoa Bay, 8 c. £7
E. London, 11 10
Hong Kong, 5 8
Pt. Elizabeth, 1 t. 15 14
Chemicals *(otherwise undescribed)*
Auckland, 21 pks. £43
Boulogne, 8 cks 40
Durban, 4 cs. 25
E. London, 2 22
Genoa, 2 c. 25
Hiogo, 10 56
Hong Kong, 9 16
Lisbon, 4 cs. 88
Melbourne, 79 90
Montreal, 1 t. 8 c. 39
New York, 65 422
Paris, 73 100
Penang, 3 cs. 34
Sydney, 22 79
Townsville, 8 cks. 40
Vancouver City, 5 26
Citric Acid—
Amsterdam, 11 c. £61
Brisbane, 2 cs. 13
Copenhagen, 10 c 86
Jamaica, 1 8
New York, 2 20
Rotterdam, 1 kg. 7
Coal Products—
Alizarine
Boston, 17 cks. £193
St. Petersburg, 3 cs. 150
Aniline
Valencia, 1 cs. £8
Anthracene
Cologne, 243 cks. £1,250
Rotterdam, 540 815
Benzol
Brussels, 24 dms. £108
Rotterdam, 20 cks 70
Carbolic Acid
Cologne, 96 cks. £450
Hong Kong, 25 dms. 10
Ludwigschafen, 49 198
Coal Tar Dyes
Boston, 3 cks. 6 brls. £152
Boulogne, 1 5
Creosote
Bordeaux, 2,992 pks. 3,143 brls. £2,844
Newport News, 250 cks. 185
Dyes
Philadelphia, 2 cks. £82
Naphtha
Boulogne, 2 brls. £12
Melbourne, 120 dms. 135
Naphthaline
Aden, 40 cks. £111
Amsterdam, 3 13 bgs. 12
New York, 132 117
Pitch
Antwerp, 955 t. £356
Duisberg, 50 brls. 150
Hamburg, 50 cks. 148
Montreal, 350 82
Rotterdam, 150 131
Wiborg, 135 232
Tar
Durban, 225 dms. £11
Honolulu, 50 9
Malmo, 5 cks. 25
Melbourne, 6 10
Nagasaki, 76 15
Wiborg, 135 t. 232
Tar Oil
Helsingfors, 25 cks. £23
Toluol
Rotterdam, 25 cks. £80
Treport, 15 55

Coal Products *(otherwise undes.)*—
Malta, 50 brls. £18
Viborg, 130 pks. 45
Copper Sulphate—
Gibraltar, 6 c. £6
Disinfectants—
Alexandria, 30 cks. £210
Bombay, 2 cs. 11
Cape Town, 368 pks. 179
Durban, 10 21 111
E. London, 1 13
Jamaica, 46 dms. 30
Melbourne, 5 14
New York, 66 pks. 209
Paris, 40 20
Pt. Elizabeth, 60 1 202 76
Stockholm, 1 13
Sydney, 10 27
Manure—
Christchurch, 50 t. £150
Demerara, 25 t. 234
Jamaica, 3 22
Landerneau, 115 920
Lyttelton, 420 1,273
New York, 4 18 c. 44
Pt. Elizabeth, 4 9 40
Trinidad, 5 35
Pearl Ashes—
Sydney, 1 t. £15
Phosphoric Acid—
Demerara, 5 t. 1 c. £70
Durban, 18 cks. 64
Potash—
Barbadoes, 305 bgs. £288
Natal, 7 c. 8
Sydney, 10 15
Potassium Bromide—
Ghent, 19 c £176
Potassium Chlorate—
E. London, 1 t. 5 c. £45
Melbourne, 1 8 45
Potassium Cyanide—
Auckland, 140 cs £824
Cartagena, 2 22
Delagoa Bay, 9 t. 3 c. 1,603
Fremantle, 19 7 1,568
New York, 210 cs. 1,263
Townsville, 14 12 c. 1,720
Potassium Prussiate—
B. Ayres, 3 c. £15
Yokohama, 1 t. 8 10
Salammoniac—
Antwerp, 1 t. £36
Hamburg, 6 c. 11
Salicylic Acid—
Kobe, 5 c. £55
Saltpetre—
Brisbane, 10 c. £12
Corunna, 2 t. 40
Durban, 10 11
Gibraltar, 5 100
Newport News, 20 12 387
Wellington, 1 20
Sheep Dip—
B. Ayres, 56 t. 5 c. £1,930
Durban, 1,000 dms. 192
E. London, 6 100
Melbourne, 12 7 200
Sodium Bicarbonate—
Honolulu, 16 c. £38
Sodium Hyposulphite—
Fremantle, 1 t. 2 c. £7
Sodium Prussiate—
Antwerp, 5 t. 1 c. £217
Philadelphia, 5 2 286
Sodium Tartrate—
Melbourne, 5 c. £17
Sulphur—
Durban, 20 cs. £7
E. London, 1 t. 100 kgs. / 50 cks. 89
Sulphuric Acid—
Durban, 20 pks. £16
Superphosphates—
Bluff, 515 t. £1,570
Lyttelton, 85 251
Tartaric Acid—
E. London, 3 c. £11
Madras, 2 12
Sydney, 10 54
Pt. Chalmers, 2 11

LIVERPOOL.

Week ending July 5th.

Acetic Acid—
Barcelona, 1 t. 5 c. £26

Ammonia—
Alexandria, 1 cs. £7
Ammonium Carbonate—
Antwerp, 10 c. £14
Barcelona, 1 t. 2 q. 31
Genoa, 10 12
Gijon, 10 14
Havana, 10 16
Marseilles, 1 38
Ammonium Muriate—
Trieste. 1 t. 1 c. £20
Ammonium Sulphate—
Boston, 25 t. 5 c £3 5
Gd. Canary, 5 65
Las Palmas, 5 2 113
New York, 128 15 1,617
Palermo, 5 62
Philadelphia, 81 3 1 q. 1,030
Teneriffe, 20 8 3 260
Valencia, 110 6 1,345
Antimony Sulphide—
New York, 4,000 lbs. 20 brls. £100
Barium Binoxide—
Osaka, 1 t. 10 c. £71
Bleaching Powder—
Amsterdam, 136 cks.
Ancona, 48
Antwerp, 59
Baltimore, 57
Barcelona, 9
Bombay, 10 cs.
Boston, 588
Genoa, 196
Ghent, 27
Melbourne, 180
Mexico City, 35
Middleton, Ob., 45
Mincie, 61
Montreal, 18
New York, 18
Nills, 20
Odessa, 30
San Sebastian, 30
Seville, 55
Spring Grove, 87
Boracic Acid—
Adelaide, 2 c. £3
Brisbane, 2 t. 49
Montreal, 1 14 2 q. 49
Borax—
Cienfuegos 1 t. 7 c. £21
Collingwood, 15 240
E. London, 3 18 56
Hamburg, 1 2 19
Havana, 2 6 1 q. 39
Matanzas, 1 5 20
Melbourne, 6 86
Montreal, 4 8 2 76
Sydney. 3 41
Talcahuano, 10 10
Tampico, 7 1 7
Toronto, 15 240
Valparaiso, 7 2 6
Calcium Carbide—
Algoa Bay, 2 t. £66
Shanghai, 10 cs. 18
Calcium Chloride—
Antwerp, 2 t. 5 c. £4
Baltimore, 12 15 24
Bombay, 2 2 5
Malta, 6 8 14
Montreal, 9 16 27
Rangoon, 2 3 5
Wellington, N.Z. 2 3 5
Castor Oil—
C. Coast Castle, 5 cs.
Honolulu, 300 dms.
Sierra Leone, 6
Caustic Potash—
Chicago, 5 t. 9 c. £143
E. St. Louis, 2 51
Caustic Soda—
Adelaide, 182 dms.
Algoa Bay, 15 cs.
Almeria, 11
Amsterdam, 135
Ancona, 15
Bahia, 30
Barcelona, 350 55 cks. 35 pks.
Bari, 17
Bilbao, 60 15
Callao, 30
Christchurch, 20
Copenhagen, 15
Dunedin. 21
Fremantle. 100
Gefle, 26 brls.
Genoa, 35
Havana, 35
Hong Kong, 35
Ibrail, 118
Kingston, Ja., 31
Kobe, 72
Las Palmas, 6
La Vela de Cora, 15
Malaga, 78
Manila, 200
Melbourne, 175 50 kgs.
Mexico City, 35
M. Video, 130
Montreal, 100 15 cks.
Nagasaki 50
N'castle, N.S.W. 50
Newfairwater, 35
New York, 250 25 tcs.
Oporto, 15
Padang, 50
Pasages, 25 25 cks.
Penang, 5
Piræus, 150
Puerto Cabello, 16
Rosario, 7
Rotterdam, 8
Roubaix, 34
Pt. Natal, 5 cs.
Samarang. 49
San Sebastian, 60
Santiago, 16
Singapore, 10
Savanilla, 6
Seville, 20 45 brls. 25
Sourabaya, 70
Sydney, 199
Tarragona, 30
Torrigos, 30
Trieste, 18
Valencia, 100 25 cks.
Valparaiso, 25
Vera Cruz, 110
Wellington, 78 brls.
Chemicals *(otherwise undescribed)*
Adelaide, 1 t. 10 c. £7
Antwerp, 5 3 q. 80
Barcelona, 9 2 2 145
Cairo, 20 cks. 66
Cape Town, 5 7
Christchurch. 5 5
Delagoa Bay, 1 t. 32
Genoa, 1 16
Hamburg, 11 3 3
Hiogo, 10 cks. 81
Johannesburg, 3 t. 300
Madras, 5 cks. 40
Marseilles, 10 39
Melbourne, 21 t. 8 2 368
Mersyne, 1 ck. 6
Mexico. 3 3
M. Video, 323 bgs. 58
New York, 14 155
Odessa, 2 t. 19 c. 1 90
Pernambuco, 5 17 3 31
Piræus 1 10 12
Porto Rico, 5 12 3 90
Santander, 10 4 154
Seville, 4 17 23
Smyrna, 3 15 3 18
Singapore, 3 300
Sydney, 1 17
Teneriffe, 2 2
Trebizonde, 3 1 18
China Clay—
Baltimore, 300 cks.
Barcelona, 20
Bombay, 50
Boston, 1,630 250 bgs.
Calcutta, 320
Lisbon, 10
Merritton, 60
Montreal, 200
Newport News, 550
New York, 760
Rio de Janeiro, 40 brls.
Savannah, 16
Windsor, 392
Chromic Acid—
Hamburg, 1 t. 10 c. £90
Citric Acid—
Cienfuegos, 3 q. £8
Vera Cruz, 3 c. 22
Wellington, 10 65
Coal Products—
Alizarine
Lisbon, 1 brl.
Aniline
Boston, 6 dms.
Aniline Colours
Barcelona, 8 kgs.
New York, 20 cks.
Aniline Dye
Barcelona, 4 cks. 1 cs.
Aniline Oil
Boston 5 dms.
Buda Pesth, 10
Cholet 1 ck.
Aniline Salt
Boston, 49 cs.
Piræus, 15 brls.

Anthracene
Rotterdam, 47 cks.
Carbolic Acid
Adelaide, 24 c. £25
Barcelona, 19 3 q. 60
Hamburg, 9 t. 18 1 627
Melbourne, 2 10 85
Newport News, 9 18 624
Toronto, 12 52
Vera Cruz, 3 21
Valparaiso, 1 6
Creosote Oil
New York, 20 brls.
Naphtha
Germany, 1 dm.
Naphthaline
Montreal, 2 cks.
Pitch
Akassa, 6 brls.
Tar
Oporto, 350 cks.
Philadelphia, 200 brls.

Copperas—
Constantinople, 27 t. £60
Malta, 2 10 c. 2 q. 5
Montreal, 3 7 2 6

Copper Sulphate—
Alexandria, 1 t. 1 c. £25
Bordeaux, 14 8 336
Brisbane, 1 26
Genoa, 30 6 611
Ghent, 9 18 3 q. 244
Lisbon, 9 2 10
Rio de Janeiro, 1 1 24
Vigo, 1 10 36

Cream of Tartar—
Tampico, 6 c. £22

Disinfectants—
Sydney, 14 c. 3 q. £16

Dried Blood—
Teneriffe, 9 t. 12 c. 1 q. £81

Glycerine—
Adelaide, 2 t. £91
Bilbao, 18 9 c. 683
Genoa, 1 10 70
Hamburg, 23 19 1 q. 960
Melbourne, 1 51
Montreal, 17 3 39
Piræus, 1 55
Seville, 1 40
Sydney, 1 48
Vera Cruz, 3 8 2 195

Magnesia—
Alexandria, 3 tcs. 1 cs.
Corunna, 2
Havana, 1
Mexico City, 2
M Video, 2
New York, 10
Pt. Limon, 5
San Juan, 3
Tunis, 10 bls.

Manure—
Gd. Canary, 5 t. £20
Las Palmas, 30 130

Oxalic Acid—
Boston, 19 t. 11 c. £505
Lisbon, 1 cs 5
Vera Cruz, 5 c. 9

Paint—
Alexandria, 10 kgs. 40 dms.
Antwerp, 119
Cartagena, 3 cs.
Cienfuegos, 3 cks.
Coquimbo, 76 29
Curacao, 4
Havana, 10 10
Karachi 120
Kingston, Ja., 167
L. Mercedes, 3
Maracaibo, 220 1
Matanzas, 2
Melbourne, 16
Nagasaki, 100 dms.
Pernambuco, 17
Sao Paulo 30
St. John's, N'fd, 11 cks.
St. Thomas, 50
Serena, 36
Sherbro, 126
Talcahuano, 1 16
Tocopilla, 20
Trieste 16
Valparaiso, 80 dms.

Painters' Colours—
Antwerp, 8 kgs.
Axim, 2 cks.
Bombay, 572 bgs. 35 cs. 72 dms.
Boston, 6 2 cks.
B. Ayres, 500 kg. 120
Genoa, 18
Havana, 10 2
Hong Kong, 10
Lisbon, 100 brls.
Manaos, 6
Mayaquez, 126 1
Para, 43 pks.
Ponce, 2
Santos, 1 ck.
Seville, 16
Valparaiso, 37 cs. 50 dms.
Vera Cruz, 3 brls.

Paraffin Wax—
Curitybo, 5 cs.
Naples, 100 bgs.
Odessa, 10

Phosphorus—
Shanghai, 80 cs. £618
Tampico, 5 44

Phosphorus (Amorph.)—
Hiogo, 60 cs. £630

Potassium Bichromate—
B. Ayres, 1 t. 12 c. £65
Hiogo, 3 —
N. Orleans, 3 —
Oporto. 16 3 q. 30
Rio de Janeiro, 1 6 49
Vera Cruz, 5 150
Yokohama, 14 11 1 —

Potassium Carbonate—
Chicago, 2 t. 1 c. £40
New York, 10 10 190

Potassium Chlorate—
Boston, 15 t. £450
Copenhagen, 2 60
Gutujewsky, 35 1,050
Hiogo, 25 762
Lisbon, 10 c. 15
Madeira, 2 10 81
Philadelphia, 2 10 80
Rotterdam, 5 156
Sydney, 2 62
Tampico, 6 10

Salammoniac—
Amsterdam, 6 c. £9
Ancona 5 8
Bourgas, 11 17
C. C. Castle, 8 2 q. 9
Genoa. 1 t. 1 35
Mersyne, 3 5
Trieste, 1 10 46

Salt—
Akassa, 564 t.
Algoa Bay, 5
Antwerp, 40
Baltimore, 370 4 c.
Barbadoes, 20
Boma, 22 18
Bonny, 8 7
Boston, 280 2,803 sks.
B. Ayres, 10 3
Calcutta, 844
Cameroons, 58 4
Cape Town, 51 2
Chicago, 135
Chittagong, 3,809
Dunedin, 30
E. London, 8 19
Ghent, 160
Iceland, 278
Kingston Jam., 24 1
Lagos, 50
Loango, 36 10
Melbourne, 1 6
M. Video, 259 16
Montreal, 503
N. Orleans, 125
Old Calabar, 20
Para, 32 5
Reykjavik, 118
Rio de Janeiro, 100 cs.
St. John's, N'fd., 15
Santos, 100
Secondi, 5
Shediac, N.B., 500
Sydney, 99
Valparaiso, 100
Warri, 9

Saltpetre—
Corinto, 15 c. £21
Tampico, 1 t. 15 3 q. 35

Satinite—
Calcutta, 3 t. 8 c. £12

Sheep Dip—
Punta Arenas, 11 t. 4 c. 2 q. £345
B. Ayres, 45 10 2 1,025
Melbourne, 6 110
Rangoon, 73 dms. 20
Sydney, 13 6

Soap—
Addah, 45 bxs.
Akassa, 3 cs.
Algoa Bay, 2,010 280 25 bdls.
Anamaboe, 50
Antwerp, 700 1,800
Barbadoes, 200
Batavia, 1,900
Benin, 50
Bluefields, 50
Bombay, 1,355 16
Boston, 25 cks.
B. Ayres, 71
Buluwayo, 50
Cairo, 40
Calamata, 50
Calcutta, 50
Callao, 2
C. C. Castle, 3
Cape Town, 5
Colon, 500
Conakry, 280
Constantinople, 80
Dunkirk, 100
Durban, 1,100
E. London, 50 4
Gibraltar, 62
Gd. Bassa, 20
Greytown, 250
Guadeloupe, 500 bdls.
Guayaquil, 55
Half Assinee, 75
Hong Kong, 2,314
Johannesburg, 50
Karachi 506
Kimberley. 100
Kingston, Ja., 1,655
Kotonou, 50
Lagos, 168
Laurium, 7
Malta, 120
Manaos, 910
Manila, 6
Matanzas, 54
Montego Bay, 100
Mossel Bay, 100
New York, 8 brls.
Opobo, 200
Osaka, 1 cs.
Para, 950 100
Penang, 606
Pt. Elizabeth, 650 21
Pt. Natal, 2,420
Pt. Pram, 50
Pretoria, 700
Rangoon, 6
Rio Hacha, 200
St. John's, N'd., 3 2
Samarang, 137
Savannah la Mar, 50
Secondi, 50
Shanghai, 6,121 3 pks.
Sherbro, 95
Sierra Leone, 501
Singapore, 3,012 50
Smyrna, 100
Sourabaya, 131
Surinam, 395
Sydney, 5,500
Tangiers, 141
Teneriffe, 303
Toronto, 200
Trinidad, 1,324 6
Valparaiso, 5
Vladivostock, 100
Warri, 50
Winnebah, 50
Winnipeg, 536

Soda Ash—
Aalborg, 100 bgs.
Adelaide, 20 cks.
Amsterdam, 100
Barcelona, 136
Boston, 280 28 tcs. 60
Brussels, 500
B. Ayres, 205 / 125 brls.
Calcutta, 625 kgs. 190
Christiania, 120 bgs.
Ghent, 334
Lagos, 20
Libau, 200
Lisbon, 12
Merrilton, 50
M. Video, 100
Oporto, 7
Osaka, 38
Philadelphia, 65 tcs.
Piræus, 135 brls.
Porto Alegre, 15
Puerto Cabello, 16
Rio de Janeiro, 25
Rio G. do Sul, 50
Rotterdam, 10 8
St. John's, N'fd., 50 kgs.
Samos, 40
Seville, 100 bgs.
Shanghai, 100
Smyrna, 200
Sourabaya, 60
Sydney, 30
Tampico, 200 74
Toronto, 100
Tunis, 50
Vera Cruz, 10
Yokohama, 250

Soda Crystals—
Alexandria, 100 brls.
Ancona, 15 cks.
Boston, 140 280 pks.
M. Video, 64
Pt. Natal, 11
Punta Arenas, 40 kgs.
Smyrna, 60

Sodium Biarseniate—
Hamburg, 5 cks.

Sodium Bicarbonate—
Alexandria, 84 kgs.
Amsterdam, 100
Antwerp, 60 30 cks.
Barbadoes, 40
Bombay, 125
Calcutta, 1,020
Corunna, 20 brls.
E. London, 20 bgs.
Genoa, 20 kgs. 4
Gutujewsky. 450
Halifax, 25
Havana, 30
Kobe, 250
Madras. 200
Marseilles, 140
Melbourne, 500
Middlebury, 10 bgs.
Odessa, 200 dms.
Owen Sound, 5 kgs. 100 qrs.
Pasages, 70
Rangoon, 15 bgs.
Rosario, 20 kgs. 10 cks.
St. John, N.B., 30
Singapore, 12
Trinidad, 30
Valencia, 30 2
Vera Cruz, 100
Vigo, 20 bxs.

Sodium Prussiate—
Boston, 21 cks.

Sodium Silicate—
Almeria, 7 brls.

Sodium Sulphate—
Montreal, 14 cks.

Sulphur—
Adelaide, 25 t. £107
Chatham, N.B., 50 2 c. 213
Merriton, Ont., 75 319
Montreal, 90 383
Natal, 5 2 3 q. 30
Para, 1 10 13

Sulphuric Acid—
Pernambuco, 7 c. £6

Superphosphates—
Barcelona, 200 t. £550
Lyttelton, 10 29

Tartaric Acid—
Cienfuegos, 1 c. 2 q. £11
Coronel, 2 14
Rangoon, 1 kg. 5
Talcahuano, 6 3 43
Vera Cruz, 10 2 16

Varnish—
Antwerp, 1 kg.
Bilbao, 3 cks.
Constantinople, 2 cs.
Coquimbo, 5
Genoa, 6 pks.
Naples, 2
Oporto, 2
Valparaiso, 18

White Lead—
Bahia, 70 kgs.
Pernambuco, 5
Salto, 80
Toronto, 60 cks.

Zinc Chloride—
Bombay, 2 t. 8 c. 1 q. £16
Genoa, 18 3 16

Zinc Oxide—
Callao, 2 t. 11 c. 1 q. £52

MANCHESTER.

Week ending July 5th.

Chemicals *(otherwise undescribed)*
Basle, 3 cks. 17 pks.

Coal Products—
Aniline Oil
Germany, 8 tins
Aniline Salt
Germany, 30 cks.
Carbolic Acid
Belgium 25 cks.
Ludwigschafen, 25 brls.
Pitch
Belgium, 303 t. 6 c.
Toluol
Germany, 44 kms.

Dyestuffs—
Logwood
Montreal { 10 cks. / 200 bgs.
Ottawa, 25
Dyewood—
Toronto, { 2 cks. / 20 bgs.
Gamma Acid—
Germany, 10 cks.
Glue—
Germany, 5 cks.
Magog, 4 bls.
Glycerine—
Germany, 10 crbys.
Montreal, 20 cs.
Paraffin Wax—
Monterey, 100 bls.
Salt—
St. John, N.B., 600 t.
Soap—
Holland 20 cs.
Sodium Bicarbonate—
Bombay, 111 kgs.
Sodium Naphthionate—
Germany, 33 cks.
Tallow—
Bombay, 70 brls.
Zinc Chloride—
Bombay, 2 cks.

HULL.

Week ending July 1st.

Basic Slag—
Konigsberg, 1,560 bgs.
Riga, 770 t.
Chemicals (*otherwise undescribed*)
Abo, 10 cks.
Alexandria, 100
Amsterdam, 24
Antwerp, 25 10 cs.
Bergen, 1 9 pks.
Christiania, 71 2,198 slbs.
Copenhagen, 45 6 20 btls.
Danzig, 10 1
Drontheim 10
Gothenburg, 8
Hamburg, 28 15 4 pks
Helsingfors, 7
Konigsberg. 18 2
New York, 15
Odessa, 77 346
Riga, 200
Rotterdam, 60
Stockholm, 2
St. Petersburg, 50
Stettin, 4 6
Coal Products—
Creosote
Boston, 50 cks.
Copenhagen, 20
New York, 200 brls.
Pitch
Antwerp, 354 t.
Bergen, 20 cks.
Christiansund, 2
Helsingfors, 50
Tar
Bergen, 7 cks.
Bremen, 3
Drontheim, 2
Dunkirk, 30
Ghent, 2
Helsingfors, 20
Rotterdam, 15
Cottonseed Oil—
Amsterdam, 9 t. 10 c.
Antwerp, 5 17
Dunkirk, 2 1
Hamburg, 24 13
Harlingen, 4 7
Rotterdam, 10 15
Stockholm, 1 13
Dyestuffs (*otherwise undescribed*
St. Petersburg, 16 cks.
Glue—
Drontheim, 5 bgs.
Ghent, 20
Gothenburg, 20
Hamburg, 8 bls.
Linseed Oil—
Antwerp, 1 t. 7 c.
Bergen. 8
Christiania, 3 18
Christiansand, 2 9
Christiansund, 1 1
Constantinople, 1 15
Copenhagen, 17
Drontheim, 6 17
Hamburg, 8 4
Stavanger, 18
Paint—
Antwerp, 3 cs.
Painters' Colours—
Amsterdam, 29 cks
Antwerp, { 330 / 254 cs. 1 pk. / 378 dms.
Bergen, 3 1 16
Boston, 53
Christiania, { 18 / 2 / 80 pks.
Christiansand, 48
Copenhagen, 32 3
Danzig. 15 1
Drontheim. 1 20 dms.
Dunkirk, 4 1
Ghent, 5 35
Gothenburg, 20
Hamburg, 11 2
Harlingen, 14 2
Helsingfors, 2 120 pks.
Jersey, 29
Konigsberg, 10
New York, 50
Odessa, 69
Riga, 4
Stockholm. 83
St. Petersburg, 2
Wyburg, 120 dms.
Soap—
Amsterdam, 200 cs.
Stockholm, 1
Starch—
Copenhagen, 100 cs.
Odessa, 1,000
Tallow—
Amsterdam, 14 cks.
Antwerp, 73
Copenhagen, 7
Harlingen, 12 cs.
Varnish—
Abo, 6 cks.
Antwerp, 1 1 cs.
Bergen, 1
Danzig, 1
Ghent, 2 1
Gothenburg, 1
Helsingfors, 5
Riga, 1
Rotterdam, 5
Stockholm, 8

GLASGOW.

Week ending July 6th.

Ammonium Carbonate—
B. Ayres, £38
Christiania. 10
Ammonium Sulphate—
Amsterdam, 30 t. 5 c.
Barcelona. 24 16
Hamburg, 20 7
Valencia, 86
Bleaching Powder—
Rio de Janeiro, 3 t. 12 c.
Victoria, 5
Boracic Acid—
Adelaide, £29
U.S.A., 125
Borax—
Adelaide, £29
U S A., 80
Castor Oil—
Adelaide, £68 15s.
Coal Products—
Benzine
Bordeaux. £230 3s.
Benzol
Rotterdam, £230
Carbolic Acid
Rotterdam. £400
Creosote Oil
Bordeaux, £2,251 10s.
Christiania, 47
France 500
Creosote Salt
Bordeaux. £145
Dextrine
U.S.A., £223
Pitch
Calcutta £40 10s.
Madras, 111 14
Tar
Bergen, £15
Calcutta. 499 10s.
Tar Oil
France £135
Rotterdam, 20
Dyestuffs—
Logwood
Canada, £59
Sumac Extract
Spain, £78
Epsom Salts—
Adelaide, £21 10s.
Farina—
Antwerp, £55
Iodine—
Rotterdam, £1,250
Lead Nitrate—
Canada, £105
Logwood Extract—
Bergen, £27
Victoria, 39 12s.
Magnesia—
Adelaide, £21
Manganese—
Antwerp, £66
Rotterdam, 20
Manure—
Natal, 10 t.
Valencia, 20
Oxalic Acid—
Canada, £40
Painters' Colours—
Adelaide, £183
Calcutta, 19 4s.
Paraffin Wax—
Christiania, £60
France, 23
Genoa, 57
Italy, 361
Pt. Elizabeth, 456
Rio de Janeiro, 100
Rotterdam, 40
Vigo, 37
Potassium Bichromate—
Amsterdam, £266
Barcelona, 234
Bergen, 11
Canada, 110
Christiania, 24
Madras 138
Marseilles, 280
Montreal, 221
Potassium Cyanide—
U.S.A., £886
Potassium Sulphate—
Valencia, £93
Rosin
Calcutta, £39
Salt—
Christiania, 6 c.
Saltpetre—
Canada. £32
Sheep Dip—
B. Ayres, £300
Soap—
Bombay, 3 t. 3 c.
Sodium Bichromate—
Montreal, 1 t. 11 c. 2 q.
Starch—
Rotterdam, £10
Tallow—
Italy. 3 t. 19 c.
Zinc Sulphate—
Canada, £24

TYNE.

Week ending July 1st.

Alkali—
Amsterdam, 12 t. 2 c. 2 q.
Leghorn. 2 7 1
Ammonium Phosphate—
St. Petersburg, qty.
Antimony—
Genoa, 5 t. 6 c. 1 q.
Hamburg. 17
St. Petersburg, 10
Barium Binoxide—
Genoa, 17 t. 1 q.
Barytes—
Hamburg, 162 t. 5 c.
Blanc Fixe—
Rotterdam, 10 t. 5 c.
Bleaching Powder—
Amsterdam, 21 t. 8 c.
Antwerp. 5 11 1 q.
Copenhagen. 4 12 2
Hamburg, 28 19 3
Leghorn, 2 2
Odense, 3 16 2
Rotterdam. 9 11 1
St. Petersburg, 44 1
Bones—
Dunkirk, 15 t. 11 c. 3 q.
Caustic Soda—
Antwerp 24 13 c. 1 q.
Christiania, 8 14
Copenhagen, 9 17
Hamburg, 4 7
Leghorn, 1 14 3 q
Rotterdam, 7 2 1
St. Petersburg, 78
Stavanger, 1 14 3
Chemicals (*otherwise undescribed*)
St. Petersburg, 32 t. 4 c. 3 q.
Coal Products—
Carbolic Acid
Bergen, 7 c. 2 q.
Ferro Manganese—
Bilbao, 50 t.
Glue—
Bergen, 3 q.
Litharge—
Hamburg, 16 c. 3 q.
Lisbon, 2 t. 2
Magnesia—
Hamburg, 5 c. 3 q.
Lisbon, 10
Magnesium Carbonate—
St. Petersburg, 1 t. 8 c.
Orange Lead—
St. Petersburg, 2 t. 12 c. 1 q.
Paint—
Antwerp. 2 t. 4 c. 1 q.
Christiania, 3
Hamburg. 1 11
Red Lead—
Aalborg, 2 t. 4 c. 2 q.
Antwerp, 1 6 3
Copenhagen, 2 3 1
Lisbon, 10 6 2
Soda—
Amsterdam, 10 t.
Christiania, 8 14 c.
Leghorn. 7 3
Rotterdam, 10 4 3 q.
Soda Ash—
Hamburg. 3 t. 19 c. 2 q.
Sodium Sulphate—
Aalborg, 2 t. 10 c.
Gothenburg, 280
Helsingfors 260
St Petersburg, 19 17 1 q.
White Lead—
Lisbon, 3 t. 3 c. 3 q.

GOOLE.

Week ending June 28th.

Alkali—
Rotterdam, 10 cks.
Chemicals (*otherwise undescribed*)
Amsterdam. 20 cks
Antwerp, 17 1 cs
Boulogne, 5 2½ dms.
Hamburg. 50
Rotterdam 10
Coal Products (*otherwise undes.*)—
Amsterdam, 98 cks. 19 cs.
Boulogne, 90 2 5 pks.
Rotterdam, 3 5
Dyestuffs (*otherwise undescribed*)
Ghent, 1 ck.
Hamburg, 41
Rotterdam { 54 / 85 bgs.
Manure—
Hamburg. 932 bgs.
Painters' Colours—
Hamburg, 1 ck.
Rotterdam 7

GRIMSBY.

Week ending July 1st.

Alkali—
Hamburg. 10 cs.
Chemicals (*otherwise undescribed*)
Gothenburg. 1 cs.
Coal Products (*otherwise undes.*)
Dieppe. 123 cks. 8 pks
Hamburg, 1
Colours—
Malmo, 10 cks.
Manure—
Hamburg, 400 bgs.
Painters' Colours—
Antwerp, 8 pks
Hamburg, 3 cks 1 cs.
Rotterdam. 5

PRICES CURRENT.

WEDNESDAY, July 12, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric .. per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1¼
Nitrous ,,	0	0	1½
Oxalic .. nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric .. ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) .. per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered .. nett per ton	19	5	0
Alum, loose lump .. ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. nett ,,	148	0	0
Ammonia, Anhydrous .. per lb.	0	1	2
,, ·880 = 28° B. .. ,,	0	0	2¾
,, = 24° B. .. ,,	0	0	1¾
,, Carbonate .. nett ,,	0	0	3¼
,, Muriate .. per ton	21	10	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. per ton	33	0	0
,, Phosphate .. per lb.	0	0	4
,, Sulphate (grey) London .. per ton	12	3	9
,, ,, (grey) Hull ,,	12	2	6
Aniline Oil (pure) .. per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4
Antimony .. per ton	39	15	0
,, (tartar emetic) .. per lb.	0	0	8
,, (golden sulphide) .. ,,	0	0	9
Barium Chloride .. per ton	6	12	6
,, Carbonate (native) .. ,,	3	15	0
,, Sulphate (native levigated) .. ,,	42/6 to 65/-		
Bleaching Powder, 35 % .. nett ,,	4	2	6
,, Liquor, 7 % .. ,,	3	10	0
Bisulphide of Carbon .. ,,	11	10	0
Chromium Acetate (crystal) .. per lb.	0	0	6¼
Calcium Chloride .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. nett per lb.	0	0	6¾
Magenta .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. per gallon	0	0	8
,, 50/90 ,, ,,	0	0	8¾
Carbolic Acid (crude 60°) .. ,,	0	2	1
,, (crystallised 40°) .. per lb.	0	0	7¼
,, (liquid 95/97%) .. per gallon	0	1	0
Creosote (ordinary) .. ,,	0	0	3½
,, (filtered for Lucigen light) .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. ,,	0	0	4
Grease Oils, 22° Tw. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. ,,	1	6	0
Solvent Naphtha, 90% at 160° .. per gallon	0	0	10
Copper .. per ton	77	2	6
,, Sulphate .. ,,	25	10	0
,, Oxide (copper scales) .. ,,	57	0	0
Glycerine (crude) 80% .. ,,	25	10	0
,, (distilled S.G. 1250°) .. ,,	48	10	0
Iodine .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. per ton	1	5	0
,, Sulphide (antimony slag) .. ,,	2	0	0
Lead (sheet) .. ,,	15	10	0
,, Litharge Flake (ex ship) .. ,,	17	0	0
,, Acetate (white ,,) .. ,,	22	0	0
,, ,, (brown ,,) .. ,,	17	15	0
,, Carbonate (white lead) pure .. ,,	18	10	0
,, Nitrate .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. per ton	4	17	6
,, ,, (grey) (ex ship) .. ,,	8	0	0
Magnesium (ribbon and wire) .. per oz.	0	2	3
,, Chloride (ex ship) .. per ton	2	10	0
,, Carbonate .. per cwt.	1	17	6
,, Calcined Magnesia .. per ton	10	10*	0
,, Sulphate (Epsom Salts) .. per ton	2	12	6
Manganese, Sulphate .. ,,	14	15	0
,, Borate .. per cwt.	2	0	0
,, Ore, 70% .. per ton	3	10	0
Methylated Spirit, 61° O.P .. per gallon	0	2	0
Naphtha (Wood), Solvent .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. ,,	0	3	8
Oils:—			
Cotton-seed .. per ton	17	10	0
Linseed .. ,,	22	0	0
Stearine .. ,,	26	0	0
Phosphorus (Yellow) .. per lb.	0	1	11
,, (red) .. ,,	0	2	8
Potassium Bichromate .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. per ton	16	5	0
,, Chlorate .. per lb.	0	0	3¼
,, Cyanide, 98 % .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % .. per ton	22	15	0
,, ,, ,, 75/80 % .. ,,	18	0	0
,, Potash Hydrate Liquid 50 % .. ,,	11	15	0
,, Nitrate (refined) .. ,,	19	15	0
,, Permanganate .. per cwt.	2	12	6
,, Prussiate Yellow .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. per ton	9	15	0
,, Muriate, 80 % ,, ,,	8	15	0
Silver (metal) .. per oz	0	2	3 11/16
Sodium (metal) .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Soda Crystals) .. ,, ,, (f.o.r. w'ks.)	2	10	0
,, Acetate (ex-ship) .. ,,	12	15	0
,, Arseniate, 45 % .. ,,	13	10	0
,, Chlorate .. per lb.	0	0	3¼
,, Borate (Borax) .. nett per ton	16	0	0
,, Bichromate .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	7	12	6
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	7	7	6
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	7	0	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	6	0	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	3	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) .. ,,	6	15	0
,, Hyposulphite .. ,,	5	5	0
,, Manganate, 25 % .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. per cwt.	0	7	9
,, Nitrite, 98 % .. per ton	26	0	0
,, Phosphate .. ,,	10	7	6
,, Prussiate .. per lb.	0	0	6¼
,, Silicate (glass) .. per ton	4	10	0
,, ,, (liquid, 100° Tw.) .. ,,	3	10	0
,, Stannate, 40 % .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. per ton	1	5	0
,, ,, (Glauber's Salts) .. ,,	1	12	6
,, Sulphide .. ,,	7	5	0
,, Sulphite .. ,,	5	2	6
Strontium Hydrate, 100 % .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. per lb.	0	0	6
,, Barium, 95 % .. ,,	0	0	4½
,, Potassium .. ,,	0	0	7
Sulphur (Flowers) .. per ton	6	15	0
,, (Roll Brimstone) .. ,,	6	0	0
,, Brimstone: Best quality .. ,,	4	12	6
Superphosphate of Lime (26 %) .. ,,	2	10	0
Tallow .. ,,	24	10	0
Tin Crystals .. per lb.	0	0	8¾
,, English Ingots .. per ton	131	10	0
Zinc (Spelter) .. ,,	26	0	0
,, Chloride (solution, 100° Tw.) .. ,,	7	10	0
,, Sulphate, Crystal .. ,,	7	15	0

THE

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TRADE TACTICS AND COMPETITION.

THERE is no denying that of late years the activity of foreign trade competitors has been very marked, and such activity has reacted more or less upon British trade, so that the wailings of the pessimists have not been wholly unjustified. But it must also be borne in mind that those who have cried Ichabod so loudly, and urged us to take a leaf out of our rival's book, have confined their attention mainly to the study of technical educational methods, and have not called attention to competitive trade methods.

While admitting the wisdom of comparing our educational systems with those of Germany and Belgium, we propose to contrast our own methods of trade development and reform with those of our rivals.

In the first place, we must face the fact that this is a free trade country, and any remedies which savour of fair trade must be abandoned; but, at the same time, we think the most rabid free trader will admit the difference between protection and discretion. Let us make the meaning of this distinction clearer. We have been proclaiming our drooping trade from the house tops, and our competitors have hugged themselves with joy. Now, we cannot impose tariffs and so close our markets against foreign competition, but we can close our mouths without incurring disrepute among free traders.

Is it wise to proclaim to all the world by consular reports and the warnings of political economists that some of our industries have been hard hit? Would it not be better to even discredit the fact that they have been hit at all—except to ourselves, for ourselves, and as of ourselves? We feel disposed to say yes, and in so doing we would point out that we shall only be doing precisely what our pessimistical prophets have urged us to do—take a leaf out of our rival's book.

If the Germans actually fear our competition more than we have cause to fear theirs, why should we let them know how far their determined efforts to capture our trade have been successful? It is an insane policy. Their activity is only increased by the cries of our alarmists, for without doubt the dread of renewed English competition is as the sword of Damocles to German traders, and as soon as we stir a few bristles in our mane there is a rush for protection. As witness, take the case of Lever Bros. establishing a centre at Mannheim. The undertaking was of vital importance to the industrial rise of Mannheim, the greatest inland harbour on the Continent; but regardless of the welfare of Mannheim, the Baden soap manufacturers at once forwarded a petition to the Diet asking for Government measures to be taken against the invasion of the Sunlight Soap Company. The petitioners spoke of the "great concern" and feared ruin on account of this British competition. The laws of the country offer no ground to interpose in the manner desired by this petition, but it must

be remarked that while the German press always shows the greatest pleasure at the progress of German enterprise, still, when an English enterprise is forced to open a branch in Germany, owing to the German protective customs laws, these newspapers are anything but pleased.

It is not all beer and skittles even in the Fatherland, and although the chemical trade can look back on a good year, forebodings are not wanting, internally, about the approaching lapse of lucrative patents. Are we prepared to benefit by the lapse of these patents? We should be, even if we have not bruited it abroad, which last remark brings us again to the questionable policy of open lamentation.

During the last few years our consular reports have teemed with complaints of our inability to compete with foreign trade rivals. There has been much truth in many of the plaints and charges laid against us, and we have no hesitation in saying that the majority of traders are ready and willing to benefit by the advice given; but cannot this advice and these words of correction be confined more or less to the ears they are intended for? It is done in Germany. A *portion* of the German Consular Reports are not published in general, but are circulated to the Chambers of Commerce, which in turn regularly advise their members when such reports—containing important references to export trade—arrive. This is a matter we think the new Commercial Intelligence Bureau might well take in hand. Such a policy will doubtless be decried by some as one of secrecy, not discretion; but call it what you will, it seems to have worked very well in Germany. Why not here?

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for May, 1899, as compared with May, 1898:—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	33,106	30,442	8,796	8,879
Sweden and Norway	12,078	11,856	2,999	2,700
Germany	7,521	5,905	2,274	1,415
Holland	9,559	11,000	1,967	2,355
France	6,041	4,724	2,201	1,717
Spain and Canaries	20 372	31,020	6,464	9,265
Italy	21,662	28,366	6,400	8,343
United States	67,855	41,620	13,553	8,304
Australasia	26,643	20,805	8,435	6,006
British North America	18,001	33,824	5,169	6,591
Other countries	98,517	140,753	28,772	38,681
Total	321,355	360,315	87,030	94,256

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	62,038	65,493	15,064	14,734
Other countries	29,036	43,376	9,324	11,492
Total	91,074	108,869	24,388	26,226

USING NATURAL GAS IN SUSSEX.—At last, the natural gas at Heathfield, Sussex, has been put to practical use. The railway station has been lighted with it after experiments with various burners. This new application has aroused a good deal of interest in scientific circles, and several natural history societies have visited the place and inspected the new arrangement. Mr. C. Dawson, F.C.S, who has visited the place and made an inspection, says it is, in his opinion, the first time practical use has been made of natural gas in Europe.

THE BICHROME WORKERS' AGITATION.

A MEETING of chemical workers, convened under the auspices of the National Labourers' Union, was held in the Masonic Hall, Rutherglen, on Saturday morning last, to consider the reply of Messrs. J. and J. White, Shawfield, to a petition presented by their workmen requesting improvements in their conditions of labour. Councillor Brown, Paisley, presided, and there was a fair attendance. The Chairman, in the course of some introductory remarks, emphasised the necessity for united action on the part of the workers. Mr. James Reilly, general secretary of the National Labourers' Union, explained the object of the meeting. He considered that the time for speech-making was past; the time for action had arrived. He had not come to force upon them one position or another, but simply to emphasise what he believed was the unanimous feeling of every worker in Shawfield, that negotiations between the men and the firm of J. and J. White should be made through the Executive Council of the Union of which the men were members. As workers they claimed the right of collective bargaining; if that was denied them the liberty of the subject was swept away. He referred to the petition addressed to the firm in May, and to which no reply was made until June. He complained that the delay showed a lack of courtesy on the part of the managers of the firm. The reply was, he considered, insulting to the men. It stated that the men had not sufficient courage to meet with their employers and discuss matters, and, further, that the resolutions contained in the petition were passed in hole-and-corner meetings. Mr. Reilly replied that the meetings were publicly called, and as for the men going to the employers, he asked how had the employers redressed their grievances in the past. He mentioned several instances where, he maintained, men had been dismissed from the service of the firm for taking an active part in the work of the union. He concluded by reading a resolution embodying a request for an eight-hours day, abolition of Sunday labour, Saturday half-holiday, increase of wages to a minimum of 6d. an hour for pearl ash, chrome and crystal workers, and 21s. a week for ordinary labourers, weekly pays, and improved sanitary arrangements. The resolution was moved and seconded by workers, and unanimously carried. A further resolution was also unanimously carried, agreeing that the request of the men should be made through the union, as they were not prepared as individuals to enter into negotiations with their employers, seeing how several of their fellow workers had been victimised through undertaking similar negotiations.

THE COMMERCIAL INTELLIGENCE BUREAU.

IT is stated that in a very few weeks the new department of the Board of Trade—the Commercial Intelligence Department—will be established. The primary difficulty is the housing of the department. There are not many offices in the vicinity of Whitehall, and to have the headquarters farther afield would be to remove it from the supervision of the Board of Trade. However, this difficulty of finding suitable accommodation is likely to be overcome, for two or three offices have been placed at the disposal of the Government until the Board of Trade building in Parliament Street is completed. The first care of those with whom the organisation of the Commercial Intelligence Bureau rests will be to provide a library and reading room where business men from the provinces in particular may call when in London and see the latest reports and secure the most recent information concerning markets abroad. Before long the President of the Board of Trade will nominate the advisory committee which will control the new branch of the Board. It will be small in its beginnings, because the Board of Trade does not want to have on its hands a white elephant like the Imperial Institute. It wants to learn just what the manufacturers and merchants require before it takes any serious step, and for a long time it will depend on the amount of appreciation of the means already in existence and the interest taken in the new departure what is done to widen the scope of the new branch. The idea is to create a department which will grow with the needs of the people for whose benefit it is created.

THE OPPOSITION TO THE STANDARD OIL COMPANY.—The English capitalists who are interested in the London company that is preparing to battle with the Standard Oil Company have invested 5,000,000 dollars in oil fields in Ohio and West Virginia. It is the intention of the company to begin to work the oil wells as soon as the necessary apparatus can be obtained. The directors have made arrangements for carrying the oil to the coast, and they enter into their fight with a good prospect of holding their own. It is being rumoured that if the English company finds it cannot cope with the Standard Oil Company it will join forces with the Standard Gas Light Company of New York, which lately announced its determination to rival the Standard Oil.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Strike-anywhere Matches, free from Phosphorus. R. H. Jude. 13,705. July 3.

Improved Method and Apparatus for the Distillation of Wood and other Materials. A. B. Singer and D. Harsanyi. 13,728. July 3.

Improvements in the Treatment of Sulphide Ores. W. J. Engledue. 13,756. July 3.

Method and Apparatus for Producing Alkali and Chlorine in parts applicable for other Purposes. P. Naef. 13,771. July 4.

Elastic and Permeable Electrodes for Storage Batteries. L. Tobiansky. 13,826. July 4.

Process and Apparatus for the Manufacture of Coal Gas. E. Besemfelder. 13,830. July 4.

Composition from Rhea-fibre applicable for Insulation. W. J. Cordner, 13,846. July 4.

Liquid Purification Plants. F. E. Priest. 13,864. July 5.

Centrifugal Apparatus for the Separation of Fats or Greases from Liquors containing same. 13,912. J. Gommensen. July 5.

Improvements in Apparatus for the Manufacture of Ammonium Nitrate. G. E. Davis and A. R. Davis. 13,972. July 6.

A New or Improved Manufacture of Soap for Washing or Scouring Wool. H. B. Kearney. 14,027. July 7.

A Process for Obtaining Rich Ferro-chromium. P. L. T. Heroult. 14,082. July 7.

Extraction of Gold from Sea Water by Chemical Means. H. C. Bull and A. Watling. 14,097. July 8.

Improvements in the Treatment of Textile Fabrics with Caustic Alkalies. J. Grime. 14,113. July 8.

Colouring Matters of the Anthracene Series. J. Y. Johnson. 14,117. July 8.

Accelerating Alcoholic Fermentations and at the same time Obtaining Pure Carbon Dioxide. A. Grauaug and J. Kranz. 14,150. July 8.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in Apparatus for, and in the Method of making Caustic Alkali and Sodium. J. C. Graham, 2, Garden Court, Temple. Eng Pat. 17,415. August 17, 1898.

The apparatus consists of a shallow covered trough, having a bottom slightly inclined, over which the mercury cathode flows in a thin, continuous stream. The solution of salt lies above the mercury, and is pumped in the opposite direction to the flow of the mercury. The anodes (which may form the top of the trough) are placed in the salt solution so as to approach the surface of the cathode as nearly as possible without touching, thereby decreasing the internal resistance as much as possible. With this arrangement the current density may be very materially increased without producing any appreciable amount of hydrogen or oxygen. There are two figures.

Improvements in Electrolytic Apparatus. M. Haas, Bahnhofstrass, Aue, Germany. Eng. Pat. 10,215. May 15, 1899.

Instead of causing the electrolyte to follow a zig-zag path, either under and over the electrodes, or alternately, first along one side and then another, the electrodes are perforated in different places and at varying angles, so as to cause the electrolyte to flow in countervailing currents which form eddies and ensure a thorough circulation. In order to obtain an equal surface of passage it is as well to group the perforations, so that the number at the sides are equal to the number arranged in a vertical line on the intermediate plate.

There are six figures showing various ways of perforating the plates.

A New Process for the Production of Indigo. H. E. Newton, 6, Bream's Buildings, Chancery Lane, London, W.C. (communicated by Farbenfabriken vormals F. Bayer & Co., Elberfeld, Germany). Eng. Pat. 16,201. July 25, 1898.

The neutral esters of phenylglycine-orthocarbonic acid when warmed with a 40° Bé lye of a caustic alkali yield indigo leuco compounds from which pure indigo can be obtained by passing air. The neutral esters are produced by saturating a mixture of absolute alcohol and phenylglycine-orthocarbonic acid with gaseous hydrochloric acid, heating for 12 hours in a water bath, and eventually distilling off the excess alcohol. The oily residue solidifies and crystallises. Any acid ester is neutralised with sodium carbonate and the neutral diethyl ester forms colourless crystals, soluble in alcohol, ether, etc., and which yield glass-like crystals of the neutral ester, on the addition of ligroin to an ethereal solution.

Improvements in the Treatment of Fatty Matters, for Deodorizing and Decolorizing the same E. Andreoli, 147, Cold Harbour Lane, Camberwell, London. Eng. Pat. 14,570. July 1, 1898.

The fats are first treated with a hypochlorite solution and then with a further quantity of hypochlorite and ozone. The fats must be agitated during the treatment, but not too violently. If desired the ozone can be used from the first. The fats are melted and the hypochlorite solution is warm, containing about 2·71 grams. per litre of chlorine.

Improvements in, and Connected with, Soap Frames used in the Manufacture and Slabbing of Soap. H. Hadfield, Ringstone's Chemical and Soap Works, Whaley Bridge, near Stockport. Eng. Pat. 15,838. July 20, 1898.

The soap frame has a false bottom which can be raised by a hand-wheel, and lifts the soap till it reaches adjustable stops. The soap is then cut by wires carried in a frame which travels across the top of the soap frame, being operated by a chain and sprocket wheels. There are 8 figures. This invention was explained in detail and illustrated in the *Journal*, No. 610, p. 53.

EXPLOSION AT WIDNES.—A disastrous explosion occurred on Wednesday at Bolton's copper works, Widnes, followed by fire and resulting in serious injury to a furnaceman named James Hill, whose back and arms were almost covered with molten copper. One of the furnaces exploded with terrific force, a large quantity of debris and metal being discharged through the roof, setting it on fire. With great difficulty the flames were extinguished in about two hours by the fire brigade, whose work was exceedingly dangerous.

LEAD SEALS FOR SACKS.—Messrs. Marshall and Co., Belsize Works, Clayton, Manchester, have sent us a sample card of their lead seals. These seals are now extensively used by corn millers, manure, cement, and seed merchants, &c., who use them to seal the string with which they tie up the necks of their bags, so that they cannot be tampered with, and also to ensure that no one can make use of the empty bags (bearing their brands) to sell inferior qualities. The railway companies and carriers are also large users to seal up parcels, as are also the Customs authorities. The firm supply special pincers to impress the seals with any design or lettering. The price varies with the size of seal and lettering or design used.

ELECTROLYTIC CARBONS.—The Atlas Carbon and Battery Co., Ltd., of Ewer-street, London, S.E., have long made a special line of carbons for batteries and dynamo brushes with considerable success, but we are pleased to see an English firm sufficiently enterprising to make a speciality of electrolytic carbons. This firm is, we understand, producing a very superior article, which is worth the attention of all who are using foreign electrodes. Their dynamo and motor brushes are also worthy of note. The efficiency and economy of carbon brushes have long been recognised, but the cost of good carbon brushes has greatly limited their use. This firm is now supplying first class brushes at a price which compares well with other makes. They are willing to make sample pairs at cost price.

THE GROVE CHEMICAL CO., LTD.—This firm advise us, that owing to the development of their business in glue and manures, they are building new extensions to their works at Appley Bridge, near Wigan. In addition to the above named industries they have developed a drysaltery branch, which is conducted by a special staff. It should be noted that this firm have been advertisers in the JOURNAL from the earliest days. They are also sellers of "Albumenoid," starch, farina, camphor, cream of tartar, &c. The first named of these products is worthy of special notice, being an excellent substitute for the expensive glues used by calico printers, carpet and leather manufacturers. For sizing warps and finishing coloured leathers it goes much farther than dextrine, starches, silicate of soda, &c.

BILLS: COMING AND REJECTED.—The following Bills are to be pushed forward in the House of Commons:—Steam Engines and Boilers (Persons in Charge) Bill,—"to grant certificates to persons in charge of steam engines and boilers," brought in by Mr. Jonathan Samuel, Mr. Joseph A. Pease, Mr. Haldane, Mr. Helder, Colonel Denny, Mr. Fenwick, Mr. John Wilson (Durham), Mr. Paulton, Mr. Warner and Mr. Joseph Walton. Rivers Pollution Prevention Bill,—"to make more effectual provision for prevention of the pollution of rivers and streams," brought in by Mr. Wilson-Todd, Sir Francis Powell, Mr. Wyvill, Mr. Hobhouse, Sir John Dorington, Sir Henry Howorth, Dr. Farquharson, Sir John Brunner and Sir Walter Foster. *Bills dropped or withdrawn:*—Boilers Inspection and Registration Bill, dropped; Coal Mines Regulation Bill, dropped; Merchandise Marks Act (1887) Amendment Bill, dropped; Mines (Eight Hours) Bill, dropped; Rating of Machinery Bill, dropped; Rivers Pollution Prevention (No. 2) Bill,—"to make more effectual provision for prevention of pollution of rivers and streams." [Bill 2] Withdrawn.

Reports of Companies.

BRITISH ALUMINIUM CO., LTD.

A GROWING DEMAND.

The fourth ordinary general meeting of the British Aluminium Company, Limited, was held on Tuesday, at the Westminster Palace Hotel, Mr. R. W. Wallace, Q.C. (the chairman of the company), presiding.

The Chairman said: It is not quite a year since I last had the pleasure of addressing you, and I had hoped that we should hold the meeting earlier this year, but there have been several matters which have prevented us from doing so. As regards our factory, I have told you at other meetings the different operations we carry on at our various properties, so that I do not propose to go into those matters, except to tell you that they are all working satisfactorily. At Larne we have reduced the cost of the production of alumina very much, and we have also, by reason of our experiments, seen our way to still further reduce the cost of the manufacture of alumina. We have also made experiments for the production of artificial cryolite, instead of bringing it from Greenland. At Milton we have also carried out extensions, and we are now rolling satisfactorily almost night and day.

With regard to the Foyers works, I may say that the storage works have been going on very well, and considering that we have had at Foyers practically no rainfall for the last eight weeks, and have only drawn about one-half of our storage water, I think you will agree with me that our engineering works have been well carried out. It was absolutely necessary to make the large expenditure that we did in connection with the storage of water. The Greenock works have also been going on well with the manufacture of carbons, but what will probably interest you more than anything else is the question of the demand for aluminium. As I have said at former meetings, this is going on comparatively slowly, but it is going on surely. The whole of the increase since 1889, taking the increase in the supply of aluminium sold throughout the world, shows that it has increased 80 times, and with regard to our own sales in this country since 1895, it has increased six times; so that you can see the demand is increasing, and, according to these figures, seemingly rapidly, but not so rapidly as we have a right to expect in this country. However, during the last six months of this year, comparing them with the corresponding six months of the year before, our sales have increased 48½ per cent., which is very good. Of course, if one could go on at that ratio, we should soon arrive at very prosperous times, though I think we might go on very much faster. The Government of this country as yet have given us very little assistance. They have given us trial orders, but we have not had such orders from them as we might hope to expect, comparing them with those of foreign countries. No doubt they will soon have completed their trials, and we shall hear something from them, but it is not going on so rapidly as I should like. For instance, the German army is more or less equipped with aluminium utensils; but we do not find that that is the case in this country, and the German ships of war—at any rate, all the recent ones—have had their internal fittings made of aluminium. There is much more to be done in the naval department of this country; but we have not had anything like so much as we had a right to expect. Then, with regard to the general trade of this country, I explained at former meetings that the demand had been stopped because of the strike, and now seems not to progress in so many directions as I should like to see, because they are so full of orders. We have, therefore, as shareholders, to be patient, and we hope to see this 48½ per cent. of increase considerably augmented soon.

A good deal has been said recently as to

THE ACTION OF SEA-WATER

on aluminium; but these reports have been much exaggerated, and, I think I may say, are quite untrue. If you have two metals in contact with salt water you create a galvanic couple, and it is very important that you should keep your metals apart; but if this is done, and the metal painted in the same way as you paint iron and steel, you don't have any considerable depreciation of the metal—in fact, I may say less than any other metal that is known. Copper is protected; but that arises in a different way, because the barnacles protect the copper, and the copper is therefore used for sheathing. There is, however, no reason why aluminium, if necessary, should not be sheathed as well as any other metal. From long experience we know that aluminium, if properly made, does not deteriorate to the extent which it has been said to do in salt water. Of course, all metals deteriorate; but, as I have said before, aluminium, under proper conditions, is destroyed less than other metals. With regard to the use of

ALUMINIUM FOR ELECTRICAL PURPOSES,

that has been going on very fast in America, but not as fast in this country as I should like to see. According to the experiments made by Lord Kelvin, the conductivity of aluminium is 60 per cent. of that of copper, but that is bulk for bulk; but as aluminium only weighs one-third of the weight of copper, you will see that half the weight of aluminium gives a corresponding amount of electrical conductivity to the weight of copper, so that, at the present price of copper, aluminium is cheaper to use for the transmission of power for telephone and telegraphic wires, and experiments have been made by the Post Office in this direction. It is this additional advantage of being so much lighter that enables you to reduce the number of poles, and make a saving in that way, and especially with such a wire as Mr. Rhodes proposes to use in Africa, which would be a great saving indeed, as the porterage of weight in those districts comes to something like £50. a ton. If you can save one-half, or more, in the way of carriage, you have a still further reduction of expenditure. As far as ornamental work is concerned, you will see some examples here which have recently come to us from India, and the Indians are now taking a great deal of this work to replace brass work. They do it beautifully by hand, and it ought to have a considerable demand in this and other countries. It ought to be used also considerably in the purification of steel, which is increasing very much.

FINANCIAL POLICY.

I should like you now to look at the balance sheet. As I have just said, our share capital has not been increased. The debentures, which were issued by degrees, so as to meet our requirements as to capital, amount to £160,500. There are mortgages amounting to £37,400. and bankers' loans £17,500., which come to about £215,000. Now it is proposed to consolidate these loans, and to issue £300,000. of debentures, which will give us approximately about £80,000. more working capital. You will see there is a new item which has come upon the debtor and creditor side of this balance sheet—that is, the sum of £227,451. That amount is the profit you shareholders have made, but which cannot be divided, but at the same time there is a profit you have made of £227,451. on your property. That is available whether it is used for the production of aluminium or any other purpose, and it is taken at a low valuation; and, of course, there are still further opportunities of increasing that capital as we develop our water-power, which is now only about one half used. There you have an asset which is not for division; but you have the pleasure of looking at it, and knowing it is there. Of course, there is the other amount put to manufacturing reserve, and I do not think there is anything else on the balance sheet that requires attention. As to the other side of the balance sheet, there is one matter I think I ought to point out, and that refers to the water rights at Foyers. As you may have heard, during the last session of Parliament there was a Bill promoted, called the Highland Water Power Bill. We had acquired rights of water power in Loch Laeven, which were thought to be valuable by other people than ourselves. We did not wish to develop them at present; but gentlemen in the City and very powerful financial groups thought these water rights should be developed in connection with a scheme called the Loch Ericht scheme, and, according to arrangements, we should have had one-fifth share in the undertaking; but Parliament rejected the scheme, because it diverted the water shed, and for other reasons. But we have still left what we consider to be the best part of that water power, and arrangements are now being made that it should be developed. Our interest in that will be one-half, which we consider to be very much better than if the other undertaking had been proceeded with. I do not know that the rest of the balance sheet requires any explanation. With regard to the profit and loss account, you see that the directors only take £1,000. for their fees, and some of us spend a considerable amount of that on behalf of the company. I do not think, considering we have so many hard-working directors, that it should be left at that figure.

CARBIDE DEVELOPMENTS.

You will see we have a balance of gross trading profit of £20,685, and have received on rents and machinery £5,737. That rental comes chiefly from the Acetylene Illuminating Company, and we have now made a new arrangement, because it was found that enough carbide of calcium was not produced at Foyers. Everything they had made had been sold, and the demand upon them could not be met. We have therefore made arrangements with the Acetylene Company which I think will be beneficial for both concerns. They are to do the selling, and we are to do the manufacturing on a sliding scale. We have put down fresh plant, which will enable us to manufacture about four times as much as has been manufactured up to the present. We can see there is a ready sale for the whole of this, which will give us a largely increased profit over the rental which we now have. I should like to say that we are working in great harmony with our foreign competitors. We have mapped out the districts which we are authorised to supply, and the result of this will be that in the end we shall be more closely connected with each other in the matter of supply and price.

LORD KELVIN A DIRECTOR.

We have the great pleasure of welcoming among us a new director, who has given us a great deal of assistance in the past. I refer to Lord Kelvin, who is now giving up a large portion of his work at the Glasgow University and is devoting more of his spare time to us. In an industry of this kind his great scientific abilities are of very great importance, I hope, as he has had so much to do with the direction of ships in the past, we shall see very shortly that ships are not only directed by his instrumentality, but that through his instrumentality the material of which the ships are constructed is also of our product. Lord Kelvin has given us a great deal of assistance, and he is prepared to give us a great deal more in the future. I am sure, therefore, you will welcome him, and listen to what he has to say on this subject. I have now the pleasure to propose "That the report and accounts, as submitted, be received and adopted, and that a dividend at the rate of 7 per cent. be declared on the cumulative preference shares up to January 1st, 1897, and that such dividend be made payable on and after August 22nd, 1899."

Lord Kelvin, in supporting the adoption of the report and accounts, said: I think the conduct of the British Aluminium Company is wholly satisfactory from the beginning, and looking merely to the prospects of dividend, it looks very well indeed that the arrears on the cumulative preference shares are now so rapidly being paid up, so that we may look forward to an excellent prospect of the full 7 per cent. on the preference shares being before long regularly paid.

Mr. Hardy asked why the dividend on the preference shares was only paid up to January, 1897.

A Shareholder inquired why the meetings should not be held in the City.

The Chairman, in reply to this and other questions, said that they had only declared, in the past, six months dividend a time. They had a balance in hand sufficient to declare a further dividend, but they thought it better not to do so, because they were keeping the share capital as low as possible. As soon as they had plenty of money at their disposal they would pay the preference capital up in full. With regard to holding meetings in the City, they would like to do so, but as they had a great many shareholders living in the vicinity of Westminster, they were anxious to consult their convenience.

The resolution, on being put to the meeting, was carried unanimously.

The retiring directors (Mr. A S. Bolton and Dr. A. A. Common) were next re-elected.

DIVIDEND.

BRADFORD DYERS' ASSOCIATION.—The directors have resolved to declare an interim dividend on the ordinary shares at the rate of 7 per cent. per annum, calculated from the due dates of payments of the share moneys. Ample provision for depreciation and reserve has been made, and a substantial amount carried forward. The warrants will be posted on August 2nd.

MORE ABOUT THE ARSENIC WORKS.

THE question of alleged poisoning of workpeople at certain arsenic works on the borders of Dartmoor came before the Tavistock Board of Guardians, on Saturday, Mr. J. W. Spear presiding. (See *C.T.J.*, 625, p. 316, and 622, p. 264). The Chairman stated that he had had an interview with Messrs. Martin and Gould, mine inspectors, on the alleged arsenical poisoning question, and the clerk was preparing additional information for them. A committee of the Board were desired to take such steps as they thought necessary to afford the inspectors any information on the subject within their power. In spite of the allegation that the arsenic works were affecting the health of the population and increasing the number of those thrown upon the rates, a tabular statement received from the inspector of poor law showed that the number of persons on the rates per thousand in Tavistock Union was exactly the average per thousand throughout the western counties—namely, 34 per 1,000. He thought the figures showed they were proceeding on safe, just, and equitable lines.

BOTTLED MERCURY AS MEDICINE.—A coroner's inquest was held at Bath, recently, on the body of a fruiterer named Watson, who was found, on a post-mortem examination being made, to have in his stomach twenty small bottles containing mercury, all securely stoppered with gutta percha. They weighed over a pound, and had perforated the stomach and set up peritonitis, which caused death. The jury found that he swallowed the bottles while in a state of dementia, believing they were medicine.

Parliamentary Jottings.

FOOD STANDARDS REFERENCE COMMITTEE.

In the House of Commons, on Monday, Sir C. Cameron moved the second reading of a new clause providing that a standing committee of reference on food standards shall be set up by the Local Government Board. He urged that this committee would give the law a certain amount of flexibility.

Mr. Long hoped the House would not adopt the clause. It was true that the Select Committee recommended that a committee of reference should be appointed to arrive at a standard of purity. That recommendation was one that the Government had found it impossible to give effect to, for it would transfer the responsibility which rested upon a Government department to an irresponsible committee of experts. It was suggested that the appointment of this committee should be in the hands of the Local Government Board, and, speaking for his own department, he would be content that it should be so, for he was perfectly confident that the interest of his own department would be looked after; but at the same time this committee would have to come to decisions on many articles of agricultural produce, and he thought it would lead to confusion if the Local Government Board were called upon to appoint it. Taking the case of butter, it would be quite easy for a committee of this sort to proceed to work with the fullest intention to do their duty and yet arrive at a conclusion which might ruin a third or a half of the dairy agriculturists in the country. That was a reason against giving such large powers to an independent expert authority free from the control of any Government department. He considered that the clause the Government had put in the Bill giving power to the Board of Agriculture to make regulations as to analysis of milk, cream, butter, or cheese would quite sufficiently carry out the recommendations of the committee or the requirements of the public. It was a compromise on a complicated and difficult question, and would give effect to the wishes of those interested in agriculture as well as of those who were anxious that there should be some well understood line dividing what was pure from what was impure. He therefore hoped the House would not adopt the hon. baronet's clause.

Mr. Kearley said they were all agreed that a committee or board to deal with the question of standards of purity was absolutely required, and if the right hon. gentleman was prepared to give the House an assurance that the committee would not be constrained or confined in its action, he did not think it would matter by whom it was appointed.

Mr. Lowles (Shoreditch, Haggerston) contended that the analysts at Somerset House enjoyed the confidence of the whole trade of the country, and no committee which could be formed would do such satisfactory work.

Mr. Hedderwick (Wick Burghs) said that if these serious penalties were to be imposed it was desirable that there should be a standard of purity by which traders might know whether they were or were not complying with the law.

Dr. Clark said the choice lay between the Local Government Board or the Board of Agriculture. He was in favour of the Local Government Board, and he also advocated the setting up of complete standards. The House ought to fix a standard, because, by the decisions of the Courts, analysts had to lay down and determine the standard on which their evidence was submitted. He hoped the House would support his hon. friend's clause. They would then have a standard set up by men capable of doing it, and not by some one appointed by the Minister.

Mr. Evans said this question had descended into a contest between the Local Government Board and the Board of Agriculture. Personally, he saw no difficulty in allowing the matter to remain where it was. What they had got to do was to see that they had facilities for prosecuting those who sold adulterated food. What was adulterated food was perfectly easy to ascertain at the present moment. (Cries of "Oh.") On the whole, he thought the Local Government Board were better able to deal with the matter than the Board of Agriculture, though he confessed that personally he should prefer to have his milk, cream, butter, and cheese chosen by the President of the Board of Agriculture rather than by the Parliamentary Secretary to the Local Government Board.

Serjeant Hemphill (Tyrone, N.) said that if the question went to a division he should vote with the hon. baronet the member for the Bridgeton Division of Glasgow. In his opinion it was quite immaterial whether the nomination of a standing committee should be by the Local Government Board or by the Board of Agriculture. The value of the new clause was that it proposed such a committee of experts. But, as the Local Government Board was at present charged with the administration of the law, there was no reason why it should be taken out of its hands and transferred to the Board of Agriculture.—On the House dividing, Sir C. Cameron's clause was rejected by a majority of 110.

Correspondence.

*** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

THE NEW PRESIDENT OF THE SOCIETY OF CHEMICAL INDUSTRY.

(To the Editor of the Chemical Trade Journal).

Sir,—It is much to be regretted that at this time, when so many graceful and pleasing expressions of mutual regard and confidence are being exchanged between the great English-speaking nations on both sides of the Atlantic, that any act should be performed that might in any manner mar such felicities. Yet it cannot be denied that the circumstances are not altogether fortunate that attend an attempt to honour science in America through the selection of Dr. Charles F. Chandler as president of the Society of Chemical Industry. I allude to the singular coincident that within a few weeks' time Dr. Chandler should have seen fit to appear before a Committee of the English Parliament and there discredit the work upon which his claim to recognition as a representative of American chemists largely depends; and that, too, not with the result apparently intended—of influencing the Committee to discredit the work—but with the result of discrediting the man, as appears from the report of the Committee lately published. I allude also to the joint announcement, lately made in the *New York Times*, that Dr. Chandler had been selected to preside over this important scientific society, and that he was the expert chemist of the Standard Oil Co. I regard this coincidence as being especially unfortunate, for if any man other than Dr. Chandler himself had attempted before that Parliamentary Committee to discredit his work of 25 years ago, the entire body of American chemists would have rallied to his support.

But now, he having taken this position of his own free will and accord, can anyone be criticised for objecting to his candidacy for one of the most honourable positions that England can bestow upon an American man of science? I think not.

I therefore regretfully sympathise with your correspondent Mr. D. R. Steuart, and while acknowledging the eminent services Dr. Chandler has rendered the New York section of the society, and the honourable position that his work as an American chemist has hitherto entitled him to hold, I do not believe that after taking the action that he has (no matter from what motive), that he is the person upon whom this great representative body of chemists on both sides of the Atlantic should bestow its honours. If the evidence of chemists given before the most important committee of the world is a mere shuttlecock to be bandied hither and yon, as seems expedient, of what value are chemists and chemistry in human affairs?

There are other members of the New York section in whose honours and successes all American chemists would cordially share, and prominent among them is Dr. Samuel P. Sadtler, of Philadelphia, whose name is here used without consulting him, but who is nevertheless one who is in every respect qualified to honour the position and to be honoured by it.

The name of Dr. Samuel P. Sadtler is respectfully submitted to the members of the Society of Chemical Industry as a candidate for president of the Society.

Yours, etc.,

New York, U.S.A.,
July 8, 1899.

S. F. Peckham.

Messrs. Krupka & Jacoby, 61 and 62, Watling Street, London, advise us that it has been decided by mutual consent to voluntarily wind up the Phaeton Electrical Co., Ltd., of which they have hitherto been the managing directors. The Phaeton Co. will not continue their business in this country, but Messrs. Krupka & Jacoby will continue the same class of business in their own name. Besides Dr. Lessing's arc lamp and electrolytic carbons, dynamo brushes and dry batteries, they will make a speciality of porcelain electric fittings, incandescent and arc lamps.

Preservatives and Colouring Matters in Food.—It is announced that the Local Government Board has appointed a Departmental Committee to report (1) whether the use of such for the preservation and colouring of food in certain quantities is injurious to health, and, if so, in what proportions does this use become injurious; (2) to what extent and in what amounts are they so used at the present time. The committee is said to consist of Sir H. E. Maxwell, M.P., Professor Thorpe, Dr. Bulstrode, and Dr. Tunnicliffe. Sir H. Maxwell has been appointed chairman of the Committee, and Mr. C. J. Huddart, of the Local Government Board, will act as secretary.

Official Memoranda.

(From the Board of Trade Journal.)

THE OILSEED CROPS OF BRITISH INDIA.

The Board of Trade have received, through the India Office, copies of memorandum relating to the oilseed crops of British India for 1898-99, as follows:—

Of Northern India it may be said that the oilseed harvest was good in Bengal alone. In that province both linseed and rapeseed did very well under the influence of excellent seasonal conditions, and the crop of both was relatively large. In Assam the mustard crop was not good. Proceeding westward, the reports from the north-western provinces say that the conditions at sowing time were such as to lead to a contraction in the area placed under these seeds (sown by themselves), and though the crop on the whole did well enough, except for some injury to rapeseed from the unusually hard frosts of the winter, the yield to the acre was much smaller than in 1898. A larger area was covered by these seeds grown with other crops, but here also the yield left something to be desired, especially in the case of rapeseed. In the Punjab the condition of the rapeseed crop was still worse, the area sown being greatly reduced owing to insufficient rain when sowings were about to be made, and the yield was smaller in even greater proportion than the reduced area, the crop being injured by drought when maturing. In the adjacent province of Sind the conditions of the Punjab rapeseed crop repeated themselves as the result of a poor inundation.

In Central and Western India the harvest was, on the whole, much worse than in Northern India. In the Central Provinces, though a larger area was sown, the season was adverse, and the yield relatively small. The results were also very poor in Bombay, and still more so in Berar and the Nizam's Territory.

The area and yield are, approximately, for all the reporting provinces:—

Average of five years ending	Linseed.		Rapeseed.	
	Acres.	Tons.	Acres.	Tons.
1896–1897 ...	7,385,000	391,000 ...	11,584,000	818,000
1897–1898 ...	6,142,000	446,000 ...	12,203,000	1,119,000
1898 1899	6,398,000	421,000 ...	11,703,000	980,000

The yield of both seeds in 1898 was unusually good, a feature which is known to follow a prolonged drought during which the land has been at rest. The crop just reaped was not so good, and though it was much better than the average, it must be noted that the average is that of a period containing a series of bad seasons.

CALCIUM CARBIDE FACTORIES IN NORWAY.

A despatch has been received at the Foreign Office from H.M. Consul-General at Christiania, reporting that two calcium carbide factories have started work in Norway. The larger, of 3,000 h.p., is situated near Hafslund, the smaller, of 1,500 h.p., near Borregaard, facing each other on either side of the Sarpfoss waterfall, above Fredrikstad. It is stated that the Hafslund factory is shortly to be increased to 5,000 h.p. It has been built by the Electricitäts Aktiengesellschaft (formerly Schuckert and Co.,) Nürnberg.

It was expected that in July or August, a third factory in Meraker, of 1,500 h.p., was to be opened, and next year one in Kinservik, of 3,600 h.p. About twenty to thirty other calcium carbide factories are in contemplation.

With its many waterfalls and a plentiful supply of limestone in some localities, Norway would appear to be more favourably situated, with regard to the production of calcium carbide than countries where steam has to be used to produce the necessary electric power. It is estimated that the cost of electric h.p., produced by waterfalls, will be about 16 kroner (17s. 8d. to £1. 2s. 3d.) per h.p. per annum. If steam be used to generate electricity the cost is far greater. The cheapest rate quoted, for instance, by the Christiana Electric Works for a ten kilowatts motor of 3,000 working hours a year, is 200 kroner (£11. 2s. 3d.) per kilowatt per annum, or about £8. 3s. 7d. per electric h.p. On the other hand, if power be generated by water, the kilns can burn all Sunday—a matter of some importance in the manufacture of calcium carbide—without extra cost.

Norway, as is well-known, does not produce coal. It is suggested, however, that charcoal might be used instead; but in that case the percentage of ash should not exceed 7 per cent. But it is of more consequence to possess cheap power and chalk together, rather than cheap power and coal in the same locality, and that as cheap power is such an important factor, no other country, however rich in lime and coal, can compete with Norway, unless equally well supplied with waterfalls. The amount of burnt lime and coal required to produce a ton of calcium carbide is estimated at 1·2 ton of lime and 0·8 ton of cinders.

THE MATCH INDUSTRY OF JAPAN.

The principal centres of the industry are at Hiogo, Osaka, Nagoya, and Tokio.

Hiogo and Osaka have together 112 factories, with a total product of 7,103,600 gross of matches of an estimated value of 5,021,250 yen, or about 78 per cent. of the total output; nearly the whole of the matches manufactured at the Hiogo and Osaka factories are for export.

Match factories of Japan are all much on the same model—one-storeyed wooden buildings of very flimsy construction. The method of making matches is extremely simple. All the processes are carried out by hand labour, with the exception that in some factories machinery is used for arranging the match sticks in the frames. The match sticks are obtained mostly from the Hokkaido; they are delivered to the factories in straw-covered bales, containing 400 bundles, called in Japanese "wa." The wood from which they are manufactured is a kind of willow, called "toro" in Japanese, and this industry would appear to be an entirely separate one. A frequent cause of complaint respecting goods manufactured for export in Japan has been the inferior method of packing. Matches also have not escaped this censure. In 1897, on the promulgation of the law respecting guilds of exporters of Japanese manufactured goods, those interested in industrial enterprises in Osaka, Hiogo, Nagoya, and Tokio, formed a guild to promote the progress of their respective industries, to put a stop to the luring away of expert workmen from other factories, and to devise better methods of packing. The manufacturers of matches in the Kobe and Osaka districts joined this guild, the main objects being to agree to submit disputes respecting trade labels to arbitration, to improve the quality of the matches, and to increase the export. In addition to this body, there is also an association known as the Nippon Rinsun Gikwai (the Japan Board of Match Manufacturers) whose functions embrace the promotion of the industry and the improving of the quality of the goods.

SCIENCE IN THE ENGLISH PRESS.

MR. G. F. BARKER, professor of physics in the University of Pennsylvania, writes to call attention to the singular inadequacy of scientific reporting in England. He came to England as the representative of the oldest of American scientific societies, and of one of the oldest of American Universities, to attend the jubilee of Professor Sir G. G. Stokes, at Cambridge, and the centenary of the Royal Institution in London, and was requested to represent the guests from abroad at the commemorative exercises. Conversation with those guests, both at the Athenæum Club and elsewhere, fully confirmed the opinion he had already formed of the excellence of the two commemorative lectures given at the Royal Institution. Professor Barker, in the course of his letter, proceeds:—I read with great pleasure the admirable abstracts of these lectures which were printed in *The Times*, although from the nature of the case they were written as a matter of general news, rather than from the scientific standpoint. Even, then, however, they seemed to me far more complete and satisfactory than the reports given by any other newspaper. Naturally I looked to see subsequently in some of the recognised scientific periodicals a more full account of these remarkable discourses. To my surprise no such account has yet appeared, so far as I can learn. One scientific journal to which the public has been accustomed to look for such reports did indeed avail itself of *The Times* abstract of the first of these lectures. But it has apparently quite ignored the second, which on account of its extreme novelty and interest, was obviously the one of which the scientific public desired to hear more fully. It was the first time in the world's experience that hydrogen, the last of the gaseous substances remaining to us, had been publicly shown in the liquid state and utilised before an audience as an instrument of research. If there can be supposed to exist in England autocrats in science who desire to exercise rigid censorship upon the matter which may be given to the public and 'boycott' all discoveries which they do not see fit to encourage, then it would seem that the end of all genuine scientific progress in England may be easily foreseen. I am quite sure such a thing could not happen in the United States, and my associates, to whom I have spoken on the subject, have assured me that in their judgment the same is true in the countries which they represented. But for *The Times* the scientific public of Europe and of America would have received no information regarding what it has pleased M. Moissan to characterise as 'the latest marvel of modern chemistry.'"

[If Mr. Barker was to see the results of the majority of the Press trying to report Royal Institution lectures he would be thankful it was *The Times* alone that attempts it.—ED. *C.T.J.*]

THAT SAFE (?) AMERICAN PETROLEUM AGAIN.—The steamer *Maverick*, belonging to the Standard Oil Company, caught fire whilst lying off the wharf at Halifax, last Monday. The vessel had a cargo of half a million gallons of oil in two thousand cases on board. The oil soon caught fire, and there were a number of tremendous explosions. Eventually the vessel drifted from her moorings and sank.

Trade Notes.

GUATEMALA AND EAST INDIAN INDIGO.—The usual July sales of Guatemala indigo took place in London on the 19th inst., when 365 serons were submitted, consisting chiefly of medium qualities and including 129 serons of new importations. There was a fairly good demand, the more coloury of the ordinary sorts being well competed for at slightly dearer prices as compared with the May sales. Messrs. Millward & Co. quote good to fine about 2d. advance, other descriptions fully par. Current quotations are:—Sobres, 2s. 3d. to 3s. 4d.; Cortes, 1s. 9d. to 3s. 2d. The present stock consists of 1,424 against 2,284 serons. East Indian cables just to hand from Calcutta indicate a great excess of moisture in most indigo-growing districts, making the prospects generally much more unfavourable, and indicating a reduction of the estimated out-turn to 112,000 mauuds. In consequence of this report, the London market is decidedly firmer.

MEXICAN CHEMICAL TRADE IN 1898.—There was scarcely any variation in the total value of the imports of chemical products. There was, however, a very considerable increase, amounting to nearly 40 per cent., in the imports of caustic soda and potash and sulphates of iron and copper, which was set off by a decrease in paints and colours (probably due to over-importation), and in miscellaneous drugs and chemicals. The values of the imports according to these sub-divisions were as follows:—Paints and colours, £54,419.; caustic soda and potash and sulphates of iron and copper, £98,735.; and miscellaneous drugs and chemicals, £191,655.

WASTE ACIDS IN PUBLIC SEWERS.—At West Bromwich recently, before the Stipendiary (Mr. Neville), Messrs. Ash and Lacey, galvanisers, of Great Bridge, were summoned for connecting their works with the public sewers without giving the Town Council proper notice. Mr. A. Caddick (town clerk), who prosecuted, explained that the defendants had experienced great difficulty in getting rid of all their waste pickle, but that did not justify them in discharging it into the sewers. Defendants first tried to discharge it into the canal, but this was stopped, and a scheme to convey it underground into a disused pit also failed. Eventually it was discovered by the borough surveyor (Mr. A. D. Greatorex) that the top of the sewers had been broken in, and the pickles were flowing into the sewers. Mr. B. Shakespeare, who defended, admitted the offence, and the Stipendiary fined defendants £20. and costs, amounting to £21. 7s. 6d.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are firm at 8d for 90's, and 9d. for 50/90's, but the demand is not very good, except for special qualities. Carbolic acids have improved, and crude is now worth 2s. 2d., and crystals, 7¾d. Naphthas are steady, with crude at 4¼d. There has been a decided improvement in pitch, which is scarce, and quoted 32s 6d., f.o.b. East Coast; West Coast, 28s. 6d. to 29s.

Sulphate of ammonia is quiet, and quotations rule very low, but with such a small amount of business doing, prices are more or less nominal. Prompt values may be taken as:—Beckton, nominal; London (outside makes), £12. 3s. 9d.; Hull, £12. to £12. 1s. 3d.; and Leith, £12. 2s. 6d.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade there is a better tone; makers are well engaged with orders in all branches, and some advances in prices are now demanded. Caustic soda has been advanced 7s. 6d. per ton, and spot quotations, f.o b. Liverpool, are to-day as follows:—77%, £8; 74%, £7. 15s.; 70%, £7. 7s. 6d.; 60%, £6. 7s. 6d. per ton. Ammonia alkali, 58%, is unchanged and firm at £3. 17s. 6d., bags, f.o.r. makers' works. For bleaching powder a higher price is now asked, quotations being £5. hardwoods, f.o.b. Liverpool, and £4. 5s to £4. 7s. 6d soft-woods, f.o.r. makers' works. Chlorates are unaltered. For sulphur there is good inquiry and price firm at £4 12s. 6d. per ton, f.o.r. Salt-cake is selling more freely at 23s. to 24s., in bulk, at makers' works. Sulphate of copper remains steady at £25. 5s. prompt, and £24. 15s. forward shipment. For soda crystals and bicarbonate, demand is active and prices firm. Nitrate of soda, 7s. 9d. per cwt. Brown acetate of lime in only moderate request at £4. 17s 6d., ex ship; grey, £8. to £8. 10s. per ton. White sugar of lead neglected at £22. 10s. per ton. Nitrate of lead unchanged at £22. per ton. Glycerine continues firm. Prussiate of potash and soda steady at 8d. and 6¼d. per lb. respectively.

For borax, the quotation is held firm at £16. per ton. Potash, caustic and carbonate, are very scarce, and the higher prices are maintained. Muriate of ammonia still irregular at £21. to £22. per ton. Other ammonia salts are firm. Sulphocyanides quiet. Tin crystals have advanced to 8¾d. per lb. Zinc salts are firmer. White powdered arsenic is steady at £19. to £19. 5s. per ton. Carbolic acid, crude and crystals, are dearer. There is, generally, a better report of trade in manufacturing centres, and a good all-round demand for chemicals.

REPORT ON MANURE MATERIAL.

There is nothing fresh to report, the market in all departments remaining extremely quiet, but with prices steady.

There is some retail inquiry for mineral phosphates, but no large business is reported.

Considerable business has been done in East Indian bone meal, at £5. to £5 3s 9d. per ton, according to quality, for shipment, and £5. 2s 6d. to £5. 5s. per ton are the closing quotations in this position. On spot, sellers are asking £5. 5s. to £5. 7s. 6d. per ton, according to quality.

Nitrate of soda is unchanged, closing spot quotation being 7s. 7½d. per cwt. for fine quality.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is not in active demand, though offerings are more plentiful. The general tone is steady, with Old Calabar done at £22. for arrival. Olive shows more activity, and Malaga is now quoted £32. 5s. per tun. Linseed oil is quiet but steady at 21s. 9d. to 22s 6d. per cwt. for Liverpool makes in export casks. Cottonseed firm at 17s. to 17s. 6d. cwt. for Liverpool refined. Castor oil is steady as regards price, but sales are restricted; good seconds Calcutta are quoted 2⅞d., and first pressure French, 2¾d. per lb. Tallow is very firm and is moving satisfactorily at full prices. Resin firm and moving fairly well at 4s. for common, 4s. 3d. to 5s. 6d. medium, and 6s. 6d. to 8s. 6d. fine. Spirits of turpentine quiet at 32s. 6d. cwt. Petroleum quiet, with American and Russian prices unchanged.

CAKES.—The tone of the market for American Western linseed on the spot continues firm, and values show a further slight improvement, though at the higher range of values now quoted consumers operate to only a moderate extent. Sellers now ask £6. 10s. to £6. 15s., and there is a steady inquiry going on for other imported descriptions, and values are well maintained at £6. 12s. 6d. to £6. 15s. for recent arrivals of River Plate, and £6. 15s. to £7. per ton for Bombay; whilst there is still a lack of supplies of Russian on this market, and the quotation remains purely nominal. For Liverpool makes, home crushers experience a moderate consumptive inquiry, and the quotation is steady and without alteration at £7. to £8. per ton, according to brand. Good to choice brands of American decorticated cottonseed are without any material change to report in values, but the business doing is only very moderate in extent at £5. 12s. 6d. to £6. 2s. 6d., according to quality, whilst there is a fair trade passing in Liverpool makes, and the value is well maintained at £6. 2s. 6d. to £6. 15s per ton, according to brand. The market for Liverpool undecorticated makes continues quite steady in tone, but transactions are only moderate in extent at former currencies, viz., £4. 17s. 6d. to £5 7s. 6d., according to brand. There is a moderate business passing in spot parcels of sound Egyptian, and the quotation is steadily maintained at £4. 10s. per ton.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The principal objects of interest at time of writing are the opening of the Yorkshire Agricultural Show here to-morrow, which promises to be highly successful, granted favourable weather; and the probability of success for the North Eastern Railway Co., and Hull and Barnsley Railway Co with their Joint Dock Bill which has now passed through what is considered the critical stages. The consular returns of exports from here to the United States for the year ending June, show a decrease in value of £15,285. Amongst the leading exports have been the following:—Alum, £55.; value black lead, £1,130; bleaching powder, £3,863.; carbolic acid, £191.; chemicals, £468.; colours, £1,735.; creosote, £11,346.; dye stuffs, £232.; glue, £341.; grease, £941.; manure, £219.; linseed oil, £1,035.; rapeseed oil, £5,801.; oxide, £793.; paints, £1,217.; washing blue, £6,777. Linseed oil is better, being quoted 19s. 7½d. spot, naked; 19s. 4½d. July-August; 17s. 10½d. to 18s. September-December; boiled and refined, £1 to £1. 10s. per ton extra. Refined cotton oil, 15s. 6d. spot, naked; 15s. 7½d. to 15s, 9d, July-August; 14s. 3d., November-April; crude, 14s. 1½d., spot. Casks £1., and barrels £1. 10s. per ton extra. Castor oil extracted here, cold drawn pharmaceutical, 28s. per cwt.; in cases 3 5/16d. per lb.; first pressure, 25s. 6d. per cwt. in barrels, in cases 3d. per lb.; second pressure, 24s. 6d. per cwt.; in cases, 2⅞d. per lb. Cod oil, £16 to £18 per ton. Olive oil unchanged, with little offering on the spot. Olive oil soap, £16. per ton to arrive. Oleines, £18. to £20. per ton. Danish and Swedish butters 102s. to 106s., down to 96s. for Dutch. American pail lard, 28s. to 29s.

CAKES.—Many of the special feeding cakes appear to be ousting the ordinary seed cakes for cattle feeding, much more enterprise being shown in cultivating the trade. Linseed cakes are firm, being quoted 95% pure, £7. 5s. to £7. 7s. 6d.; oilcakes (linseed) £6. 5s. to £6. 7s. 6d.; Russians, £7. 5s. to £7. 7s 6d.; Americans, nil. Cotton cakes steady, best makes, £5. to £5. 5s.; seconds, £4. 17. 6d. to £5. 2s. 6d.; decorticated, £6 7s. 6d. to £6. 10s.; meal, £6.; Rape cakes, Black Sea, £4. per ton.

PAINTS.—Unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Wednesday.

By the time last week that the works and offices had got fully closed for the holidays, the position of sulphate of ammonia had further declined, but after all only to an almost infinitesimal extent. Forward business was hardly talked of at all, while for prompt there was very little doing. Sellers could no longer be sure of getting as much as £12. 3s. 9d. spot Leith, but on the other hand not one of them was known to be offering at £12. 2s. 6d. The position probably still stands at about that, but there is to-day only the beginning of a resumption of business, and price indices are, as a matter of course, rather vague of form. Nitrate of soda also has continued to the easy side. The common chemicals are all understood to be in a moderate degree of firmness and movement, without any special change of quotation. Bichromates steady at the late reduction. Oils and paraffins without new feature.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 7s. 6d., 70/72° £7., 60/62° £6., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 7s. 6d. to £5. 12s. 6d. nett, Tyne; saltcake, 25s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3⅝d., less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 2s. 6d. to £12. 3s 9d. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25. 5s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb.; paraffin spirit (naphtha), 9d. to 9½d. per gal; paraffin oil (burning), No. 1, 6¼d.; and crystal, 6¾d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £4. 15s. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were 399 hhds., and 898 bags beet, unrefined.

TYNE CHEMICAL REPORT.

Tuesday.

Chemicals continue quiet, but there seems to be a little better demand for caustic soda, and an inclination to hold for higher prices for that article. For local consumption soda crystals are £2. 12s. 6d. per ton, gross weight. Sulphur, £4. 12. 6d. per ton. Caustic, 70%, £7. 10s., and 76/77%, £8 10s. per ton, f.o.b. Tyne.

Bleaching powder, softs, £5. 5s. per ton, nett; do., hards, £5. 10s. per ton, nett; caustic soda: 76/77% £8. 10s., and 70% £7. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 12s. 6d. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. 0d. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. 0d. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The coal trade is active and prices are steady. For best Northumbrian steam coals the quotation is now 12s. 6d. per ton, f.o.b.;

steam smalls are 5s. 3d. per ton. In bunker coals the tendency is steady, and the price for unscreened kinds is about 9s. 6d. per ton, f.o.b. Gas coals are quiet, with little change in the price, this being the time of the lowest consumption. Coke is steady, best Durham makes being from 24s. to 25s. per ton, f.o.b.; while for local consumption the price is about 22s., free at the Tyneside furnaces.

New Companies.

Coltness Iron Co., Ltd.—CAPITAL £800,000. in £1. shares. This company has been formed to acquire and take over the business and undertaking of the Coltness Iron Co., Ltd., now in liquidation. The subscribers to the memorandum of association are:—W. Houldsworth, Rozelle, Ayrshire, ironmaster; W. Houldsworth, Coodham, Kilmarnock, landed proprietor; W. Houldsworth, Royelle, Ayrshire, ironmaster; J. Houldsworth, Castlebank, Lanark, landed proprietor; J. Scott, Newmains, Lanarkshire, ironmaster; R. Russell, Newmains, Lanarkshire, ironmaster; S Lings, Temple Chambers, St. James's Square, Manchester, cotton spinner. Registered office, 161, W. George-street, Glasgow.

Godfrey Calciner Co., Ltd.—CAPITAL £30,000. in £1. shares. This company has been formed to adopt an agreement with H. B. Hunt, and to acquire, own, and work an invention relating to mechanically calcining furnaces or for calcining metallic ores, or drying moisture from ores or other materials. The subscribers to the memorandum of association:—J. Godfrey, 55, Walter-road, Swansea, assayer; H. J. Hayes, 203, Eaton Crescent, Swansea, accountant; T. Coyswell, 7, Rosehill Terrace, Swansea, accountant; J. E. Astmole, 10, Montpelier Terrace, Swansea, accountant; A. G. Moffatt, Gloucester House, Swansea, shipowner; W. Turpin, 23, Gwydr Crescent, Swansea, shipbroker; E. J. Norman, 6, Pleasant-street, Swansea, clerk. Registered office, 55, Suffolk House, Laurence Pountney Hill, E C.

James Samuelson & Sons, Ltd.—CAPITAL £40,000. in £10. shares. This company has been formed to adopt an agreement with a company of the same name, and its liquidator, to acquire the business carried on by the said old company, at the seed crushing and oil works near the West Float, in Poulton, Ches., and at Liverpool, and to carry on the business of seed crushers, oil refiners, etc. The subscribers to the memorandum of association are:—R. Dobell, 23, Oldhall-street, Liverpool, merchant; W. Heyworth, 11, Oldhall-street, Liverpool, salesman; J. Crewdson, 11, Rumford Place, Liverpool, salesman; E. Baxter, Ashlar Mount, Rainhall, Lanc., gentleman; C. MacIver, 12, Tower Buildings, N Liverpool, merchant; M. K. King, 2, Redcliff Parade, Bristol, African merchant; J. Jordan, 17, Charlotte-square, Edinburgh, merchant. Registered office, 48, Castle-street, Liverpool.

British Oil and Cake Mills, Ltd.—CAPITAL £1,500,000. in £1. shares (750,000 5½ per cent. cum pref.). This company has been formed to enter into an agreement with John R. Bartlett and Chadwick and Co., Ltd., to acquire the business of (1) Foster Bros., Gloucester, Ltd., (2) Wright Bros. and Co., of Hull, (3) Phœnix Oil Mill Co., Ltd, of Liverpool, (4) D. Russell and Co, Ltd., of Burntisland, (5), Stuart and Gregson, of Hull, (6) Pearson Brothers, of Gainsborough, (7) Willows, Holt and Willows, Ltd, of Hull, (8) Pearson and Bailey, of Hull, (9) Stewart Brothers and Spencer, of London and Rochester, (10) W. and W. H. Stead, Ltd., of London and Liverpool, (11) Croad and Brown, Ltd., of Bridgwater, (12) E. and W. Pearson, of Liverpool, (13) Pearson, Beckitt and Co., of Glasgow, (14) Thomas Bernard and Co., Ltd., of Leith (15) Union Oil and Cake Mills, Ltd., of London, (16) Edwin Robson, of Hull, and (17) Stephen Brothers, of Hull, and to carry on the business of seed crushers, manufacturers of linseed, cotton and other cakes, oil extractors and refiners, soap boilers, oil cloth manufacturers, artificial manure makers, cake and corn merchants, millers, flour merchants, bakers, biscuit manufacturers, chemists, druggists, etc The subscribers to the memorandum of association are:—E. Fairweather, St. Olave's, Heathfield-road, Croydon, secretary; G. Pfeiffer, 223, Hampstead-road, N.W., accountant; Harry A Nutland, 4. Fontarabia-road, Clapham Common, S.W., clerk; J. A. Ellis, 22, Davies-road, Fulham, S.W., bookkeeper; A. Thorne, 116, Camden-street, N W., clerk; J. S. Dare, 59, Weston Park, Crouch End, N, assistant secretary; S. J. Edwards, 39, Mansfield-road, Ilford, secretary.

Gazette Notices.

PARTNERSHIP DISSOLVED.

E MANN and S. E. ALLEN, soap and candle manufacturers and oil merchants under the style of Edgar Mann & Co.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending July 8th.

Acetate of Lime—
U. States, 664 bgs. Lister & Biggs

Acetic Acid—
Holland, 59 pks. R. W. Greeff & Co.
" 60 Little & Johnston

Acetone—
Austria, 29 pks. Thames S. T. & L. Co., Ld.
Germany, 10 T. H. Lee

Alkali—
France, 5 t. 10 c. J. Harrison

Alum—
Germany, 3 pks. Butler's Wf., Ld.
Holland, 45 J. White
" 200 W. G. Taylor & Co

Ammonia—
Holland, £43 Phillips & Graves

Antimony Ore—
France, 20 t. Novelli & Co
Melbourne, 50 R. & H. Anni-on
" 3 D. W. Greenhough & Son
A. Turkey, 30 G. Smith & Son

Arsenic—
Melbourne, 85 pks. G. H. Adams & Co.
Portugal, 123 Coverley & Westray

Barium—
Germany, 5 cks. H. Johnson & Sons

Barium Chloride—
Germany, 50 pks. Petri Brs.

Barium Sulphate—
Belgium, 100 pks. Sawer, Sons, & Co.

Barytes—
Belgium, 105 pks. W. Harrison & Co.
" 20 Leach & Co.
" 396 J. L. Lyon & Co.
Holland, 21 Brandram Brs. & Co.
" 11 Phillipps & Graves
" 88 Taylor Brs.
" 303 W. Harrison & Co.
Germany, 101 "
" 28 J. L Lyon & Co.

Bleaching Powder—
France, 181 pks. J. M. Steel & Co.
Holland, 22 "

Bones—
Sydney, 3 t. Anning & Cobb
" 8 Hicks, Nash & Co.
Queensland, 13 Goad, Rigg & Co

Caoutchouc—
Aden, 18 c. Wallace Bros
Belgium, 310 E. Bower & Co.
Germany, 16 F. Huth & Co.
" 6 Prop. Bull Wf
" 6 Prop. Hay's Wf.
E. Indies, 25 W. M. Smith & Sons
" 24 Butler's Wf., Ld.
Zanzibar, 21 L. & I. D. Jt. Co.
Spain, 8 "
Madagascar, 6 "
Rangoon, 8 "
Sydney, 2 Lewis & Peat

Castor Oil—
E. Indies, 50 cs. Perkins & Homer
" 15 cks. J. Owen
France, 20 cs. F. Boehm
Italy, 10 A. & M Zimmermann
Belgium, 20 brls. Humphrey & Co.
France, 10 cks. C. Tennant, Sons & Co.

Caustic Potash—
Germany, 15 dms. J. M. Steel & Co.
" 19 South Devon Wf. Co.
France, 4 pks. G. Burroughs

Chemicals *(otherwise undescribed)*
France, £78 Mory & Co.
U. States, 20 Davies & Co.
" 350 B. & F. Wf Co., Ld.
" 490 S C. Jones
Germany, 10 Stein Brs
" 70 "
" 11 pks. "
" 26 Argo S. S. Co.
" 22 L. & I. D. Jt Co.
" 11 White Brs.
" 13 Butler's Wf. Ld
" 72 Craven & Co.
" 13 A. & M. Zimmermann
" 55 R. W. Greeff & Co
" 8 H. Lambert
" 12 C. Atkins & Nisbet
" 80 H. Harkness
Holland, 400 "
" 95 Netherlands S. B. Co.
" 7 T. H. Lee
Belgium, 65 T. Palmer
" 20 John Cockerill Line
" 25 T. H Lee
" 10 T. Ronaldson & Co.

Citrate of Lime—
Italy, 25 cks. B Jacob & Sons

Coal Products—
Carbolic Acid
Germany, 25 pks. Captain Baumann
Naphtha
U. States, 4,000 brls. W. Simpson & Co.
Pitch
Germany, 100 brls. D. Smith
N. Russia, 100 J. D. Hewitt & Co.
Tar
Russia, 230 brls. Will & Board
U. States, 200 Produce Brokers' Co.

Cobalt Ore—
Sydney, 64 t. Lister & Biggs

Cream of Tartar—
Holland, 12 pks. Kirkpatrick, Barr & Co.
France, 5 F. C. Devon & Co.
" 4 C. Christophersen & Co.
" 3 Vokins & Co, Ld.
" 23 W. C. Bacon & Co.
" 6 B & F. Wf. Co. Ld.
Italy, 1 Howes Brs. & Co
" 25 C. Tennant, Sons, & Co.

Cresoline—
U. States, 32 pks. Lunham & Moore

Dyestuffs—
Alizarine
Holland, 5 pks. G. S. N. Co.
Argols
Italy, 457 pks. B. Jacob & Sons
Cochineal
Canary Is., 23 pks. W. M. Smith & Sons
Cutch
Rangoon, 1,050 bgs. A. B. Curtis & Co.
" 200 pks. Hoare, Wilson & Co
Extracts
Germany, 5 pks. T. H. Lee
" 1 Argo S. S. Co.
Austria, 53 Fellows, Morton & Co.
" 130 Boutcher, Mortimore & Co.
" 70 Bailey & Leetham, Ld.
Holland, 5 Hicks, Nash & Co.
France, 205 Beresford & Co.
" 40 T. H Lee
Gambier
Straits, 283 pks. Beresford & Co.
" 1,745 Brinkmann & Co.
Indigo
Straits, 57 chts. L. & I. D. Jt. Co.
Germany 8 "
Colon, 38 srns. "
E. Indies, 111 chts. "
" 7 Parsons & Keith
" 18 Arbuthnot, Ewart & Co.
Myrabolams
E. Indies, 312 pks. Montgomerie & Workman
" 81 R. G. Hall & Co.
" 2,000 Dalton & Young
" 1,000 Sollas & Sons
" 1,779 P. & O. Co
" 1,366 H. J. Perlbach & Co.
Saffron
Spain, 4 pks. Comp. Nath. d'Escompte de Paris

Shumac
Italy, 37 pks. Bevington & Sons
" 27 H. Johnson & Sons
Germany, 1 Argo S. S. Co.
—— 400 Deering & Robottom
Tanners' Bark
Natal, 3 pks. 148 t. Flack, Chandler & Co.
" 34 50 A. & W. Nesbitt
" 71 Boutcher, Mortimore & Co.
France, 21 Hicks, Nash & Co.
Adelaide, 90 J. Greig
Cape, 25 Union L. Co., Ld.
Belgium, 10 Leach & Co.
Turmeric
E. Indies, 83 pks. Wallace Brs.
" 349 Lucas & Spencer's Wf.
" 250 G. S. N. Co.
" 25 L. & I. D. Jt. Co.
Valonia
A. Turkey 25 t. Deering & Robottom
France, 20 Hicks, Nash & Co.

Dyestuffs (*otherwise undescribed*)
France, 200 pks. Netherlands S. B. Co.

Farina—
Germany, 50 pks. H. Lorenz
" 50 J. Barber & Co.
U. States, 292 Taylor Brs.
Italy, 12 C. Tennant, Sons, & Co.
Holland, 188 R. G. Hall & Co.
" 50 J. Barber & Co.

Glucose—
U. States, 4,456 pks. 14,790 c. R. G. Hall & Co.
" 25 117 G. Clarke & Co.
" 20 116 C. Mangold & Co.
" 1 000 1,000 Pearce, Pelly, & Co.
" 100 580 H. Johnson & Sons
" 200 1,218 L. & T. Il. L. C. & D Co.
" 1,250 1,250 J. Travers & Sons
" 250 250 L. Norman & Co., Ld.
" 1,000 1,000 Bellamy's Wf., Ld.
" 1,050 1,309 C. Barnard
" 150 1,500 Pickford & Co.
" 500 500 E. Thompson
" 525 1,500 L. & I. D. Jt. Co.
" 500 500 Beck & Pollitzer
Germany, 13 104 M. D. Co.

Glue—
Sydney, £45 A. McArthur & Co.
France, 74 Mory & Co
Germany, 105 L. & I. D. Jt. Co.
" 65 W. W. Jones & Co.
" 58 Steinhoff, Sons & Co.
" 19 Butler's Wf., Ld.
" 9 Captain Baumann
Queensl'nd, 250 T. J. & T. Powell
Belgium, 300 G. E. Banes
Holland, 58 G. S. N. Co.
" 25 Phillips & Graves
" 53 A. G. Robinson & Co.
N. Russia, 240 M. H. Voss
" 300 M. D. Co.

Glycerine—
Holland, £400 J. Barber & Co.
Queensl'nd, 480 L. & I. D. Jt. Co.

Gutta Percha—
Straits, 1 t. 10 c. W. Pope & Co
" 4 15 Huttenbach & Co.
" 16 10 Gilman Brs & Co.
B. Guiana, 3 E. Figgis & Co.
Holland, 1 8 T. H. Lee
France, 1 Anderson, Weber & Smith
U. States, 6 Union Ltge. Co., Ld.

Iodine—
Japan, 6 cs. W. M. Smith & Sons

Iron Oxide—
Austria, 12 pks. O'Hara & Hoar
Germany, 2 H. Lambert
Persia, 700 t. M. Dk. Co.

Lead Acetate—
Germany, 2 pks. Argo S. S. Co.
" 28 F. Boehm

Litharge—
Germany, 5 pks. Butler's Wf., Ld.

Manganese Ore—
Germany, 1 t. Taylor Brs.
" 16 C. Hog & Co.

Manure—
Belgium, 100 t. C. A. & H. Nichols

Methyl Alcohol—
Germany, 2,460 g. Lister & Biggs
Belgium, 1,170 "
U. States 3,800 T. Jones & Co.
" 3,600 Parker & Co.
France, 7 dms. E. Catlin

Molasses—
U. States, 430 cs. 187 c. H. A. Lithfield & Co.
" 295 cks. 1,770 L. & I. D. Jt. Co.
" 500 brls. 2,798 Prop. Cooperage Wf.
" 288 pns. 1,510 Ohlenschlager Brs.
B.W.I., 120 1,100 Perkins & Homer

Ochre—
U. States, 38 pks. Taylor Brs.
Holland. 2 Phillipps & Graves
France, 21 Wilkinson, Heywood & Co.
" 245 W. Harrison & Co.

Oxalic Acid—
Holland, 25 pks. R. W. Greeff & Co.

Paraffin Wax—
Germany, 7 cs. T. H. Lee

Phosphates—
Belgium, 15 t. J. Gibbs & Co.
" 100 J. Harrison
——, 540 A. Hunter & Co.
U. States, 1,027 West & Penrose

Potash—
Holland, 2 pks. G. S. N. Co.
Belgium, 10 cks. T. H. Lee

Potassium Bicarbonate—
Holland, 20 pks A. & M. Zimmermann

Potassium Bromide—
Germany, 5 pks. R. W. Greeff & Co.

Potassium Carbonate—
France, 12 c. W. E. Cole
Germany, 64 cks J. M. Steel
10 t. & Co

Potassium Chlorate—
Sweden, 125 pks. G. Boor & Co.
Belgium, 20 E. Allen

Potassium Muriate—
Germany, 50 pks. F. W. Berk & Co., Ld.

Potassium Oxalate—
Holland, 20 pks. R. W. Greeff & Co.

Potassium Prussiate—
France, 10 pks. J. Owen

Potassium Sulphate—
Germany, 50 pks. F. W. Berk & Co., Ld.
" 300 Bessler, Waechter, & Co.

Pyrites—
Portugal, 999 t. Mason & Barry, Ld.
Spain, 1,971 Naylor, Benzon, & Co.

Red Lead—
Holland, 35 pks. Wilkinson, Heywood, & Co.
Germany, 16 P. Jantzen

Rosin—
U. States, 1,000 brls. Prod. Brokers' Co.
" 40 T. Nickels & Co.
" 1,000 J. Knight & Co.
Germany, 10 Craven & Co.
France, 33 Poth, Hille, & Co.

Salicylic Acid—
Germany, 36 pks. Butler's Wf., Ld.

Saltpetre—
E. Indies, 1,189 bgs. Lucas & Spencer's Wf.
Germany, 156 cks P. Hecker & Co.

Soda (Washing)—
Holland, 62 c. Netherlands S. B. Co.

Sodium Prussiate—
Belgium, 7 pks. J. Owen

Sodium Sulphate
Holland, 15 cks. H. Lorenz

Starch—
Holland, 45 pks. G. S. N. Co.
" 90 A. G. Robinson & Co.
" 1,287 Little & Johnston
" 40 Hernu, Peron, & Co.
France, 60 "
" 10 L. P. D. Co.
" 1,548 W. E. Cole
U. States, 300 R. Bennett & Co.
" 250 Beck & Pollitzer
" 3,200 Ohlenschlager Brs.
" 4,400 Union Ltge. Co., Ld.
" 350 R. G. Hall & Co.
" 400 R. Warner & Co.
Germany, 100 Argo S. S. Co.
Belgium, 196 T. H. Lee
" 340 T. Ronaldson & Co.
" 380 Becker & Wagner
" 108 Leach & Co.
Canada, 400 R. Bennett & Co.

Stearine—
Belgium, 5 bgs. Fuerst Brs.
" 126 H. Hill & Sons
Sydney, 87 cks. Hoare, Wilson, & Co.
Rock'pton, 337 Dalgety & Co.
U. States, 112 Phillipps & Graves
Holland, 26 bls. J. Owen

Sulphur—
Spain, 140 t. J. Forster
Italy, 11 W. & E. Pantin
" 6 A. F. White & Co.

Superphosphates—
Belgium, 15 t. Chemical Works

Tallow—
U. States, 210 brls. J. Thredder, Son, & Co.
" 250 Cuthbert & Hall
" 80 C. S. Lovell
Sydney. 71 cks. Dalgety & Co., Ld.
" 378 J. R. Francis & Co.
" 24 Aust. Meat Co.
" 345 G. S. Yuill & Co.
" 30 Cuthbert & Hall
" 381 Phillipps & Graves
Rock'pton, 154 Beresford & Co.
Queensland, 63 Lucas & Spencer's Wf.
" 371 Anning & Cobb
N. Zealand, 75 A. B. Curtis & Co.
" 11 Flack, Chandler,
" 150 Dalgety & Co., Ld.
" 75 W. France & Co., Ld.
" 73 Bessler, Waechter, & Co.
" 1,342 Deering & Robottom
" 150 Mordaunt Brs.
" 50 Brown & Elmslie
" 527 Phillipps & Graves
Melbourne, 415 cks. Elkan & Co.
" 131 J. W. Cook & Co., Ld.
" 50 Union Ltge. Co., Ld.
" 352 Phillipps & Graves
" 100 Lucas & Spencer's Wf.
" 347 H. Lambert
" 53 Goad, Rigg, & Co.
" 200 Mordaunt Brs.
Sweden, 50 bgs. W. E. Bott & Co.
Straits, 2,180 Kaltenbach & Schmitz

Tannin—
Germany, 5 pks R. W. Greeff & Co.

Tartaric Acid—
Holland, 24 pks. Kirkpatrick, Barr, & Co.
Germany, 10 B. & F. Wf. Co., Ld.
" 8 D. T. Domeier & Co.

Ultramarine—
Holland, 1 pk. Haeffner, Hilpert, & Co.
" 5 J. Barber & Co.
" 54 Becker & Wagner
Germany, 4 Steinhoff, Sons, & Co.

Varnish—
U. States, 75 pks. Taylor Brs.
" 21 Atlantic Transport Co.
Germany, 10 Brit. Anti-Fouling Co.
France, 8 Mory & Co.
Belgium, 2 Wilson & Co.

Waste Salt—
Germany, 10 t. B. & F. Wf. Co., Ld.

White Lead—
Belgium, 58 pks T. & W. Farmiloe, Ld.
" 22 Fleming's Oil & Chemical Co.
" 15 Leach & Co.
Holland, 49 T. & W. Farmiloe, Ld.
" 20 Kerestedji & Co.
Germany, 50 R. W. Greeff & Co.
" 57 J. L. Lyon & Co.
" 55 W. Harrison & Co.
" 48 Wilkinson, Heywood & Co.
" 11 Taylor Brs.

Wolfram Ore—
Brisbane, 10 t. H. Grey, junr.
Queensland, 7 Brown & Elmslie

Wood Pulp—
Sweden, 243 pks. Alsing & Co., Ld.
" 300 Hagborg & Co.
Norway, 17 M. Dk. Co.
Belgium, 2,056 J. Harrison

Zinc Oxide—
Germany, 92 pks. M. Ashby, Ld.
" 404 Soundy & Sons
U. States, 225 M. Ashby, Ld.

Zinc Sulphide—
Sweden, 50 bgs. Dicketts & Co.

Zinc White—
Holland, 20 pks. J. Barber & Co.
Germany, 40 R. W. Greeff & Co.

LIVERPOOL.

Week ending July 6th.

Acetate—
Antwerp, 1 ck.

Acetic Acid—
Antwerp, 4 cks.

Alum—
Antwerp, 1 ck,

Aluminium—
New York, 35 bxs. T. Ashbury

Antimony Ore—
Antofagasta, 1,594 sks. Arrainayo & Co.

Barytes—
Antwerp, { 87 cks. 250 bgs.
Hamburg, 100
Rotterdam, 160

Bones—
B. Ayres, 684 766 kilos,
Natal, qty.

Boracic Acid—
Leghorn, 68 cks.

Castor Oil—
Calcutta, 650 cs. Ralli Brs.
Marseilles, { 141 cks. 396 brls.

Chemicals (*otherwise undescribed*)
Bremen, 4 cks.

Chlorate of Lime—
Antwerp, 2 cks.

Chrome Ore—
Baltimore, 20 cks. P. R. McQuie & Son

Chromium Acetate—
Antwerp, 1 ck.

Coal Products—
Alizarine
Antwerp, 2 cks.
Aniline Colours
Antwerp, 1 ck. 1 cs.

Cobalt—
Rouen, 6 cs.

Colours—
Hamburg, 6 cks.

Cottonseed Oil—
Boston, 845 brls.
N. Orleans, 770

Cream of Tartar—
Barcelona, 5 cks. F. & L. Sitzler
" 5 butts
Bordeaux, 45 cks.
Genoa, { 2 brls. 2 cks.
Marseilles, 4

Dyestuffs—
Dyewood
Philadelphia, 60 brls.
Extract
Amsterdam, 40 pks.
Antwerp, 1 ck. 1 cs.
Bordeaux, 795 cks. J. R. Francis & Co.
Dunkirk, 50
Fiume, 754 brls.
Havre, 8 cs. Cunard S.S Co.
Nantes, 375 cks. Boutcher, Mortimore & Co.
" 175
Rotterdam, 15
Rouen, 209
Fustic
Tampico, 7,650 pcs.
Indigo
Rotterdam, 2 chts.
Logwood
Hamburg, 140 t.
Myrabolams
Bombay, 675 bgs. E. D. Sassoon & Co.
" 3,260
Shumac
Palermo, { 1,000 bgs. 117 bls.
Valonia
Smyrna, 98 t. 2,221 bgs.
Verdigris
Marseilles, 5 cks.

Dyewood Extract—
New York, 250 brls. McArthur & Co.

Philadelphia, 100

Farina—
Fiume, 100 bgs.
Hamburg, 10

Ferro Chrome—
Bordeaux, 22 cks.

Glucose—
Montreal, 1,000 brls.
Rotterdam, 10 cks.

Glue—
Hamburg, 20 bgs.
New York, 50 cs.
Rotterdam, 140 bgs.
Rouen, 160 cs. 18 cks.

Glue Stock—
Hamburg, 37 bls.
Philadelphia, 2 cks.

Lead Acetate—
Antwerp, 1 ck.

Linseed Oil—
Amsterdam, 60 brls.

Lithopone—
Amsterdam, 40 cks.

Logwood Extract—
New York, 83 pks. G. I. Chemical Wks.

Manganese Ore—
Coquimbo, 500 t.
Hamburg, 140 bgs.

Mica (Pulp)—
New York, 7 bdls.

Molasses—
New York, 4 pks.
N. Orleans, 1,000 brls.

Nitrate—
Iquique, 95 sks.

Ochre—
Dunkirk, 20 cks.
Marseilles, 21
Rouen, 120

Paint—
Boston, 55 cs. B. Behrend & Co.
" 20
Marseilles, 30 brls.

Paraffin Wax—
New York, 752 brls. Thompson & Bedford

Phosphates—
Ghent, 385 t. J. T. Fletcher & Co.

Potash—
Dunkirk, 20 dms. Bancroft & Co.
" 64
Hamburg, 122 cks.
Rouen, 75

Potassium Prussiate—
Bordeaux, 16 cks.

Pyrites—
Huelva, 4,396 t. Matheson & Co

Rosin—
Boston, 1,500 brls.
New York, 1,550

Salt—
Antwerp, 2 cks.
Newport News, 150 sks. Plumett Thompson

Saltpetre—
Hamburg, 26 cks. / 6 pks. / 20 kgs.

Silver Ore—
Antofagasta, 4,687 sks. Vorwerk & Co.

Soap—
Boston, 5 cs. / 10 bxs.
Marseilles, 125 / 43 cs.
New York, 6,000 bxs Lever Brs., Ld.
Newport News, 326 brls.
N. Orleans, 675
Philadelphia, 3,001 bxs. "
Rotterdam, 8 cs.
Smyrna, 343 bxs.

Soap Lye—
Marseilles, 64 dms.

Soap Stock—
New York, 779 brls.

Soapstone—
Bordeaux, 310 bgs. Geo. G. Blackwell, Sons & Co., Ld.
" 10 bgs.
Genoa, 300

Soda—
Antwerp, 1 ck.
San Francisco, 175 sks. M. Nicol

Sodium Nitrate—
Caleta Buena, 7,972 sks.

Starch—
Amsterdam, 40 bxs.
Antwerp, 316 cs.
Baltimore, 1,000 bgs.
Bremen, 86 cs.
New York, 20 brls.
Rotterdam, 80 cs. Brown, Geveke, & Co.

Stearine—
Rotterdam, 26 bls.
Rouen, 64 bgs.

Sulphate of Albumen—
Antwerp, 1 ck.

Tallow—
Baltimore, 200 tcs.
Boston, 790 / 22 brls. / 5 hhds.
Lisbon, 15 cks.
New York, 250 hhds. / 550 tcs.
Newport News, 65
Philadelphia, 60
Rotterdam, 20
San Francisco, 425 brls.

Tanning Extract—
Ghent, 10 cks.
Marseilles, 50

Tartaric Acid—
Hamburg, 2 cks.
Marseilles, 22
Rotterdam, 2

Ultramarine—
Bremen, 4 cks.
Rotterdam, 16

Waste Salt—
Hamburg, 204 bgs.

White Lead—
Rotterdam, 20 cks.
Trieste, 20 brls.

Wood Pulp—
Boston, 6 crts. Lever Bros., Ld.
Halifax, 268½ lbs. / 6,439 bls.
Rotterdam, 159

Zinc Oxide—
Antwerp, 100 brls.
New York, 100

Zinc White—
Hamburg, 40 cks.
Rotterdam, 151

MANCHESTER.

Week ending July 8th.

Acetate of Lime—
New York, 2,890 bgs.

Ammonia—
Antwerp, 1 cs.
Rotterdam, 25 oldrs.

Antimony Salt—
Hamburg, 2 cks.

Barytes—
Antwerp, 200 bgs.
Rotterdam, 90

Calcium Carbide—
Treport, 30 cs.

Castor Oil—
Antwerp, 70 brls.

Chemicals *(otherwise undescribed)*
Rotterdam, 2 cks.

Chrome Acid—
Rotterdam, 1 ck.

Coal Products—
Alizarine
Rotterdam, 73 cks.
Aniline Salt
Rotterdam, 23 cks.

Colours—
Hamburg, 4 cks 6 cs.
Rotterdam, 37 5 / 111 brls. / 28 bxs.

Dyestuffs—
Extract
Nantes, 150 cks. J. & P. Hutchison

Farina—
Hamburg, 12 bgs.
Stettin, 2,100 Browne, Geveke, & Co.
" 650

Glucose—
New York, 150 brls.
Stettin, 200 bgs.

Glue—
Antwerp, 73 bls.
Hamburg, 3 cs.
Rotterdam, 110 bgs. 7
Stettin, 20

Lead Acetate—
Rotterdam, 19 cks.

Litharge—
Rotterdam. 6 cks.

Paraffin Wax—
New York, 625 brls. / 250 cs.

Potash—
Hamburg, 10 cks. 20 dms.
Rotterdam, 1
Treport, 40

Potassium Carbonate—
Hamburg, 11 cks.

Rosin—
New York, 100 brls.

Sodium Nitrate—
Rotterdam, 19 cks.

Starch—
Hamburg, 160 cs.
Rotterdam, 190

Stearine—
Rotterdam, 13 bls.

Tannin Extract—
Treport, 27 cks.

Tartaric Acid—
Rotterdam, 60 kgs. / 63 cks.

Tartar Emetic—
Hamburg, 7 cks.

Ultramarine—
Hamburg, 6 cks.

Waste Salt—
Hamburg, qty.

Wood Naphtha—
Treport, 5 cks.

Wood Pulp—
Chicoutimi, 4,713 t. 15 c. A. Wertheim & Co.
Christiania, 2,750 bls. W. H. Ingram
" 200
Drammen, 2,160
Gefle, 6,029
Gothenburg, 2,014
Hamburg, 140 pks.
Kallero, 1,460
New York, 24 rolls
Rotterdam, 480 bdls.
Stettin, 380
Skien, 1,325 bls.
" 50 W. H. Ingram

Zinc Oxide—
Antwerp, 40 brls.
New York, 100

HULL.

Week ending July 8th.

Ammonia—
Christiania, 1 kg. Wilson, Sons, & Co., Ld.

Barytes—
Amsterdam, 100 bgs. Hull & Netherlands S. S. Co
Antwerp, 35 cks. H. F. Pudsey
" 281 pks.
Bremen, 33 cks. Sissons Brs. & Co., Ld.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. Hull & Netherlands S. S. Co.
Antwerp, 2 cks. Wilson, Sons, & Co., Ld.
Hamburg, 1 cs. W. Hay & Co.
Rotterdam, 2 Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 65 pks. Hull & Netherlands S. S. Co.
61 brls.
Aniline
Rotterdam, 109 pks. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 22 pks. Hull & Netherlands S. S. Co.
Pitch
Rotterdam, 38 cks. Hull & Netherlands S. S. Co.
Tar
Danzig, 21 brls. Wilson, Sons, & Co., Ld.
Konigsberg, 240 "
" 150

Colours—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co.
Antwerp, 19 pks. Wilson, Sons, & Co., Ld.
" 20
Bremen, 2 cs. J. Pyefinch & Co.
Danzig, 10 cks. Wilson, Sons, & Co., Ld.
Hamburg, 27 pks.
Rotterdam, 78 / 10 cks. Hull & Netherlands S. S Co. / 2 brls.
Stettin, 45 pks. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Bordeaux, 7 cks.
Rotterdam, 2 Hull & Netherlands S. S. Co.

Dyestuffs—
Extract
Bordeaux, 50 cks.
New York, 10 brls. Wilson, Sons, & Co., Ld.
Rouen, 32 cks. "
Shumac
Palermo, 1,274 bls. Wilson, Sons, & Co., Ld.
" 1,267 bgs.

Farina—
Ghent, 10 bgs. Wilson, Sons, & Co., Ld.
Hamburg 100 "
" 100
Harlingen, 100 bls. "
Stettin, 1,175 bgs.

Glucose—
Hamburg, 141 cks. Wilson, Sons, & Co., Ld.
New York, 60 brls.
Rotterdam, 40 bgs. Hull & Netherlands S. S. Co.

Glue—
Antwerp, 2 cks. Bailey & Leetham, Ld.
Christiansund, 2 brls. Wilson, Sons, & Co., Ld.
Hamburg, 200 bgs.
Rouen, 3 cks. "

Glue Stock—
Hamburg, 439 bls. Wilson, Sons, & Co., Ld.

Lead Acetate—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.
Hamburg. 12

Linseed Oil—
Amsterdam, 116 brls. Hull & Netherlands S. S. Co.

Ochre—
Rouen, 9 cks. Wilson, Sons, & Co., Ld.

Paint—
Copenhagen, 16 brls. Wilson, Sons, & Co., Ld.

Paraffin Wax—
New York, 300 brls. Wilson,
300 bgs. Sons, & Co., Ld.
" 570 brls.

Phosphates—
Bougie, 800 t.

Potash—
Antwerp, 30 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 58 dms. / 28 cks. "

Red Lead—
Amsterdam, 8 cks. Hull & Nether lands S. S. Co.
Rotterdam, 10 "

Rosin—
Brunswick, Ga., 2,803 brls.
Trieste, 10 cs. Wilson, Sons, & Co., Ld.

Saltpetre—
Hamburg, 4 cks. Bailey & Leetham, Ld.
" 40 bgs. Wilson, Sons, & Co., Ld.

Soap—
Bari, 7 cs. Wilson, Sons, & Co., Ld.
Molfetta, 40 "

Soda—
Antwerp, 200 bgs. Wilson
107 dms. Sons, & Co., Ld
Hamburg, 1 ck. "
50 bgs. "

Sodium Nitrate—
Hamburg, 772 bgs.

Starch—
Amsterdam, 50 bgs. Hull & Netherlands S. S. Co.

Antwerp, 140 cs. J. Hall & Son
" 360 pks.
Bremen, 1,933 Veltmann & Co.
Ghent, 113 cs. Wilson, Sons, & Co, Ld.

Stearine—
New York, 16 hds. Wilson, Sons, & Co., Ld.

Sulphur—
Catania, 1,050 bgs.
" 92 cks.

Tallow—
Dunkirk, 196 cks. Wilson, Sons, & Co., Ld.
New York, 205 hds. "

Tartar—
Amsterdam, 9 cks. Hull & Netherlands S. S. Co.

Tartaric Acid—
Bari, 90 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 16 Hull & Netherlands S S Co.

Turpentine—
Brunswick, Ga, 1,500 brls.
Riga, 12 Wilson, Sons, & Co, Ld.

Ultramarine—
Bremen, 4 cks. Sissons Brs. & Co, Ld.
" 40 cs.
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.

Varnish—
Antwerp, 3 brls. J G. Glew

Waste Salt—
Hamburg, 366 bgs.

White Lead
Amsterdam, 64 cks. Hull & Netherlands S. S. Co.
Antwerp, 13
Rotterdam, 101 "

Wood Pulp—
Bergen, 16 pks. Wilson, Sons, & Co., Ld.
Christiania, 1,528 bls. "
Gothenburg, 260 "
Helsingfors, 171 J. Good & Sons

Zinc Sulphate—
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.

Zinc White—
Amsterdam, 40 cks. Hull & Netherlands S S. Co.

GLASGOW.

Week ending July 13th.

Acetone—
Hamburg, 10 cs.

Alcohol—
Hamburg, 1 ck.

Barium Chloride—
Rotterdam 4 cks.

Barium Sulphate—
Antwerp, 650 bgs.

Barytes—
Rotterdam, 100 pks. J. Rankine & Son
" 9 cks.

Bleaching Powder—
Hamburg, 54 cks.
Rotterdam, 23

Castor Oil—
Marseilles, 17 cks.
" 10 cs.

Chrome Ore—
Hamburg, 1 cs.

Chromium Acetate—
Rotterdam, 1 ck.
" 1 cs.

Coal Products—
Alizarine
Rotterdam, 46 cks.
" 51 brls.
Aniline
Rotterdam, 22 cks.
" 6 cs.
Pitch
Rotterdam, 4 cks.

Colours—
Hamburg, 19 cks.
" 3 cs.
Rotterdam, 20 cks. J. Rankine & Son
38 pks
" 40 brls.
8 bxs.
14 cks.
3 cs.

Copper Precipitate—
Huelva, 105 t. Tharsis Sulphur & Copper Co.

Cream of Tartar—
Barcelona, 2 cks.
Tarragona 15

Dyestuffs—
Indigo
Rotterdam, 2 cks.

Dyewood Extract—
Philadelphia, 50 brls.

Glucose—
Newport News, 1 brl.
Philadelphia, 100

Glue—
Hamburg, 2 bgs.
Rotterdam, 20

Iron Oxide—
Montreal, 62 brls.
" 96 kgs.

Magnesium Sulphate—
Hamburg, 500 bgs.

Molasses—
New York, 1,090 cs.

Nickel Ore—
Leer, 100 t.

Paint—
New York, 1 cs.

Paraffin Wax—
Philadelphia, 200 brls.

Potash—
Montreal, 8 brls.

Potassium Bichromate—
Hamburg, 20 cks.

Potassium Carbonate—
Hamburg, 20 cks.

Pyrites—
Huelva, 1,737 t Tharsis Sulphur & Copper Co.

Red Lead—
Rotterdam, 18 cks. J. Rankine & Son

Rosin—
New York, 500 brls.

Saltpetre—
Hamburg, 2 cks.

Soap—
N. Orleans, 379 brls.
New York, 2,504 pks.

Soap Lyes—
Marseilles, 30 cks.

Sodium Nitrate—
Iquique, 22,248 bgs. A. Cross & Sons
Pisagua, 10,194 Thompson, Aikman, & Co.

Starch—
Antwerp, 162 cs.
Rotterdam, 13 J. Rankine & Son

Stearine—
New York, 36 tcs.

Sulphur Ore—
Seville, 1,145 t

Tallow—
New York, 30 hhds.

Tan Extract—
Marseilles, 150 cks.

Tartaric Acid—
Marseilles, 4 cks.
Rotterdam, 6

Waste Salt—
Hamburg. 257 cks
267 bgs.
152,400 kilos.

White Lead—
Rotterdam, 30 pks. J. Rankine & Son
" 13 cks.

Wood Pulp—
Christiania, 27 bls. 34 cs.
Gefle, 2,502 Henderson, Craig, & Co.
Holmestrand, 2,000
Montreal, 223

Zinc Oxide—
New York, 100 brls.

Zinc White—
Rotterdam, 100 pks. J. Rankine & Son

TYNE.

Week ending July 8th.

Asbestos—
Hamburg, 39 bgs. Tyne S. S. Co.
Montreal, 300 660 sks.

Barytes—
Hamburg, 250 bgs. Tyne S. S. Co.
Rotterdam, 57 cks. "

Chemicals (*otherwise undescribed*)
Amsterdam, 1 cs. W. Swanston & Sons

Colours—
Antwerp, 3 cks. Tyne S. S. Co.
Rotterdam, 3 brls. "

Glue—
Hamburg, 40 bgs. Tyne S. S. Co.

Infusorial Earth—
Hamburg, 159 bgs. Tyne S. S. Co.

Lead Acetate—
Hamburg, 1 ck. Tyne S. S. Co.

Lime—
St. Valery, 223 t. Langdale's Chemical M. Co

Limestone—
Antwerp, 13 crts. Tyne S. S. Co.

Paint (Siderosthen)—
Hamburg, 5 cks. Tyne
5 dms. S. S. Co.

Rosin—
Baltimore, 673 brls. J. Cook & Co.

Soap—
Rotterdam, 2 cs. Tyne S. S. Co.

Sodium Sulphate—
Gothenburg, 202 t.

Starch—
Antwerp, 40 cs. Tyne S. S. Co.
Rotterdam, 62 "

Tartaric Acid—
Rotterdam, 2 cks Tyne S. S. Co.

White Lead—
Antwerp, 32 brls. Tyne S. S. Co

Wood Pulp—
Arendal, 400 bls. P. H. Matthiessen & Co.
Laurvig, 416 "
Trondhjem, 12 "

Zinc Oxide—
Antwerp, 10 brls. Tyne S. S. Co.

GOOLE.

Week ending July 5th.

Antimony—
Boulogne, 4 cks.

Bog Ore—
Delfszyhl, 158 t.

Caoutchouc—
Antwerp, 23 cs.
Boulogne, 21 cks.

Chemicals (*otherwise undescribed*)
Hamburg, 10 cks.

Coal Products—
Alizarine
Rotterdam, 44 cks. 1 cs

Colours—
Dunkirk, 99 cks.
Hamburg, 38 18 cs.

Dyestuffs (*otherwise undescribed*)
Amsterdam, 3 cks.
Boulogne, 29 2 cs. 84 pks.
Rotterdam, 531 95

Farina—
Hamburg, 150 bgs.

Glue—
Antwerp, 21 brls.
Boulogne, 23 bs.
Hamburg, 1 ck.
Rotterdam, 16 bgs.

Phosphates—
Ghent, 1,515 bgs.

Potash—
Calais, 16 dms.
Hamburg, 20 cks.

Saltpetre—
Rotterdam, 100 bgs.

Sodium Nitrate—
Rotterdam, 8 cks.

Starch—
Ghent, 207 cs.

Waste Salt—
Hamburg, 709 cks.

GRIMSBY.

Week ending July 8th.

Caoutchouc—
Esbjerg, 1 bkt.
Hamburg, 14 cs.
Rotterdam, 3

Chemicals (*otherwise undescribed*)
Antwerp, 1 ck.
Hamburg, 1

Coal Products—
Pitch
Hamburg, 69 cks.

Colours—
Antwerp, 5 cks. 99 pks.
Hamburg, 29 7 cs. 22
Rotterdam, 25

Dyestuffs (*otherwise undescribed*)
Dieppe, 23 cks.

Dyestuffs—
Extract
Hamburg, 1 ck.
Indigo
Hamburg, 5 cs.

Ferro Chrome—
Antwerp, 20 cs.

Silica—
Dieppe, 100 sks.

Zinc Ashes—
Rotterdam, 5 cks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending July 12th.

Acetic Acid—
Canterbury, 20 cs. £38

Amm nia (Anhydrous)—
Rangoon, 8 c. £127

Ammonium Carbonate—
New York, 75 pks. £275
Rotterdam, 1 t. 32
St. Petersburg, 5 150

Ammonium Muriate—
Melbourne, 1 t. 3 c. £20
Newport News, 55 cks. 314
Rotterdam. 15 113

Ammonium Sulphate—
Barbadoes, 20 t. 6 c. £200
Bremen, 74 907
Hamburg, 61 760
Valencia, 50 550

Barium Nitrate—
N. Orleans, 14 t. 6 c. £308

Bisulphite of Lime—
Bombay, 2 t. 3 c. £31

Bone Ash—
Rotterdam, 10 t. £135

Boracic Acid—
Christchurch, 30 kgs. £41

Borax—
Townsville, 1 t. 5 c. £21

Calcium Chloride—
Rotterdam, 15 c. £53

Carbonic Acid Gas—
Rotterdam, 4 c. £10
Yokohama, 6 cs. 27

Caustic Potash—
Hong Kong, 8 c. £13

Caustic Soda—
Alexandria, 11 c. £5
Cape Town, 13 12
Dominica, 1 t. 6 10
Dunedin, 3 2 73

Durban, 5 3 36
Invercargill, 6 13
Normanton, 7 14
Tampico, 10 3 78

Chemicals *(otherwise undescribed)*
Alexandria, 2 cks. £14
Bremen, 1 cs. 46
Brisbane, 4 13
Brussels, 10 c. 65
Christchurch, 3 cs. 18
Colombo, 7 c. 32
Dunedin, 20 pks. 59
Durban, 3 kgs. 3 42
E. London, 1 cs. 17
Hamburg, 1 ck. 16 213
Hamburg, 5 t. 15 c.
Leghorn, 10 kgs. 61
Melbourne, 19 cks. 22 76
Montreal, 10 kgs. 24
Oporto, 3 23
Pt. Elizabeth, 25 cs. 73
Singapore, 19 65
St. Petersburg, 20 119
Sydney, 10 15

Citric Acid—
Hobart, 7 c. £70

Coal Products—
Aniline Oil
New York, 32 dms. £930
Rotterdam, 10 250
Benzine
Wellington, 14 pks. £5
Benzol
Rotterdam, 20 puns £120
Carbolic Acid
Alexandria, 157 dms. £110
Antwerp, 11 cks —
Pt. Elizabeth, 2 cs. 7
Rotterdam, 14 52
Creosote
Dieppe, 92,633 galls £489
Gasoline
Durban, 30 dms. £24
Naphtha
Dunedin, 5 dms. £20
Lyttelton, 120 101
Melbourne, 40 50
Wellington, 30 15
Naphthaline
Bordeaux, 40 cks. £51
Brussels, 60 100
Cologne, 17 147
Paris, 40 52
Pasages, 40 bgs. 28
Pitch
Alexandria, 300 cks. £110
Antwerp, 556 t. 612
Boston, 200 cks. 85
Chantenoy, 595 t. 892
Halifax, 221 cks 138
Honfleur, 140 t. 210
Newport News, 200 bgs. 28
St. John, N.B., 260 cks. 160
Pyridine
Rotterdam, 33 cks. £332
Tar
Brisbane, 50 dms. £11
Hamburg, 100 brls. 46
Helsingfors, 400 cks. 243
Toluol
Rotterdam, 25 cks. 27 puns 44 rnlts. £410

Copper Sulphate—
Cape Town, 1 t. £25
Ghent, 10 244

Cream of Tartar—
Melbourne, 1 t. £77
Normanton, 10 c. 33

Disinfectants—
Alexandria, 12 pks £11
Amsterdam, 4 kgs. 12
Brisbane, 46 cs. 21
Colombo, 27 11
Dieppe, 24 cks. 37
Melbourne, 6 120 dms. 62
Penang, 50 27

Glycerine—
New York, 19 t. £520
Yokohama, 4 173

Manure—
Colombo, 62 t. £372
Invercargill, 100 775
Hamburg, 150 744
Mauritius, 50 466
Morlaix, 170 1,360
Motril, 50 14 c. 400
Natal, 66 8 344
Riga, 101 4 225
Rouen, 50 450
Trinidad, 5 33

Nitric Acid—
Townsville, 20 cs. £30

Phosphorus—
Dunedin, 10 cs. £80
Wellington, 4 c. 35

Potassium Cyanide—
Cologne, 5 cs. £24
Delagoa Bay, 5 t. 181
Fremantle, 150 1 24
Melbourne, 6 645
N. Orleans, 100 560
Normanton, 2 129
Rockhampton, 1 115
St. Petersburg, 35 595
Townsville, 3 325

Potassium Prussiate—
Yokohama, 10 c. £37

Salammoniac—
Hong Kong, 3 c. £6

Saltpetre—
Amsterdam, 2 t. £48
Corunna, 2 42
Hamburg, 10 c. 10
Oporto, 5 18 125
Santos, 2 43
Sydney, 2 43

Salts of Soda—
Brussels 4 c. £13

Sheep Dip—
B. Ayres, 7 t. 19 c. 2,650 cs. £9,190
Boston, 25 32
Durban, 2 9 c. 60
Hobart, 100 dms 30
Jamaica, 30 14
Montreal, 50 cs. 63
N. Orleans, 500 623
Pt. Elizabeth, 90 37

Soda—
Brussels, 1 t. 2 c. £16
Dunedin, 10 9
Durban, 1 1 5
Toronto, 1 12 6

Soda Ash—
Christchurch, 2 t. 1 c. £8

Soda Crystals—
Cape Town, 1 t. 11 c. £5
Sydney, 2 15 9

Sodium Bicarbonate—
Cape Town, 1 t. £7
Montreal, 6 c. 16
Zanzibar, 3 20

Sodium Carbonate—
E. London, 1 t. £27

Sodium Sulphate—
Ghent, 110 t. £165

Sodium Sulphite—
Toronto, 1 t. £132

Sodium Tartrate—
Montreal, 6 c. £19

Sulphite of Lime—
Toronto, 13 c. £109

Sulphur—
Cape Town, 23 t. 13 c. 265 cks. 269 kgs. £563

Sulphuric Acid—
Colombo, 5 t. 28 cs. 5 c. 10 dms. £83
E. London 6 26

Tartaric Acid—
E. London, 3 c. £17
Normanton, 1 cs. 6

Washing Powder—
Brisbane. 4 t. 5 c. £80

LIVERPOOL.

Week ending July 12th.

Aluminous Cake—
Calcutta, 67 t. 17 c 2 q. £181
Dunedin, 5 1 13

Ammonia—
Para, 1 c. 3 q. £3
Vera Cruz, 3 dms. 6

Ammonium Carbonate—
Barcelona, 10 c £15
Bordeaux, 18 pks. 23
Genoa, 3 t. 70
Gothenburg, 2 11 78
Havana, 1 30
Lisbon, 8 12
Marseilles, 1 5 30
Para, 2 7
Stockholm, 3 7 38

Ammonium Muriate—
Barcelona, 1 t. 8 c £29
Danzig, 1 13
Montreal, 2 2 42
Odessa, 3 2 63
Piræus, 1 19
Trieste, 1 19

Ammonium Sulphate—
Barbadoes, 20 t. 12 c. £240
Boston, 25 5 310
Cheribon, 150 9 1,980
Gd. Canary, 19 246
Las Palmas, 25 1 310
Natal, 23 10 336
Pecalongan, 98 15 2 q. 1,281
Philadelphia, 20 2 3 260
Samarang, 106 13 1,386
Sourabaya, 463 2 2 1,980
Tegal, 50 603
Valencia, 19 16 226

Barium Chloride—
Rotterdam, 5 c. £12

Basic Slag—
Granville, 470 t. £330
Nantes, 295 10 c. 443

Bleaching Powder—
Athens, 3 cks.
Baltimore, 55
Barcelona, 54
Boston, 492
Chicago, 20 bxs.
East Pepperell, 44
E. St. Louis, 25
Genoa, 162
Hamburg, 56
Leghorn, 25
Milwaukee, 96
New York, 279 100 brls.
Oporto, 28
Rio de Janeiro, 12 cs.
Rotterdam, 48
Venice, 29

Boracic Acid—
Halifax, 5 c. £8
Montreal, 2 t. 4 66

Borax—
Alexandria, 10 c. £9
Halifax, 15 11
Havana, 3 t. 1 44
Ibrail, 3 40
M. Video, 6 1 q. 6
Montreal, 11 8 189
Rio de Janeiro, 7 1 7
Shanghai, 1 1 1 18
St. John 13 12
Toronto, 5 80

Calcium Carbide—
Algoa Bay, 1 t. £33

Calcium Chloride—
Genoa, 2 t. 6 c. £6
Gibraltar, 2 1 5
New York, 4 3 9

Caustic Soda—
Alexandria, 50 dms.
Antwerp, 15 8 cks.
Barcelona, 493 67
Bilbao, 50
Bari, 24
Boston, 65 brls.
B. Ayres, 50
Brindisi, 18
Cadiz, 25
Calcutta, 93
Callao, 70
Catania, 18
Chicago, 20
Corral, 20
Delagoa Bay, 16 cs.
Eten, 5
E. St. Louis, 15 10 10 bxs.
Fetschen, 147
Fiume, 15
Galatz, 100
Genoa, 541
Ghent, 25
Guatemala, 60
Gutujewsky, 314
Hamburg, 90 8
Hiogo, 216
Hong Kong, 3 cks.
Ibrail, 25
Johannesburg, 20 9 cs.
La Guayra, 18
Leghorn, 92
Lisbon, 60
Maceio, 7
Malaga, 41
Maracaibo 16
Marseilles, 80
Melbourne, 92
Messina, 130
Mollendo, 20
M. Video, 25
Nantes 18
Napier, 15
Naples, 41
New York, 145
Odessa, 224
Oporto, 104
Palermo, 109
Penang, 7
Pernambuco, 23
Piræus 15
Rotterdam, 88
St. Stephen, 50
San Sebastian, 90
Seville, 69 10 brls.
Singapore, 92 12 cs.
Sourabaya, 10
Talcahuano, 50
Tarragona, 25
Trieste, 40
Valparaiso, 85
Vera Cruz, 30 10
Wellington, 10

Chemicals *(otherwise undescribed)*
Alexandria, 7 t. 20 brls. £101
Barcelona, 28 cks. 260
Cairo, 10 33
Calcutta, 26 t. 1 c. 2 q. 114
Cape Town, 1 6 7
Galatz, 1 brl. 1 6 1 12
Hamburg, 7 cks. 66
Havana, 7 t. 3 3 21
Larnaca, 1 6 2
Limassol, 1 bx. 3
Lisbon, 1 ck. 8
Mazagan, 6 t. 15 2 35
Melbourne, 8 cks. 27
Montreal, 87 104
New York, 9 t. 12 2 9
Philadelphia, 13 17 348
Rio de Janeiro, 6 600
Rotteroam, 10 18
Syra, 2 3 1 10
Talcahuano, 2 kgs. 3
Trieste, 2 cks. 16
Varna, 3 t. 16 1 17

China Clay—
Baltimore, 200 cks.
Boston, 840
Montreal, 86
New York, 400
Oporto, 52
Pernambuco, 50
Philadelphia, 33
Ranegunge, 140
Rio de Janeiro, 32
Santander, 1

Coal Products—
Alizarine Colours
Canada, 4 brls.
Aniline Colour
Boston 4 cks.
New York, 48
Aniline Dye
Barcelona, 20 kgs.
Aniline Oil
Boston. 10 dms.
Aniline Salt
Barcelona, 7 cks.
Boston, 35 cs.
Lisbon, 1 pun.
Carbolic Acid
Rouen, 5 t. 19 c. £328
Creosote Oil
Oporto, 300 cks.
Pitch
Colombo, 20 t.
Tar
Bahia, 15 brls.
Mollendo, 2 t. 8 c.
Penang, 200 rnlts.

Copperas—
Calcutta, 15 t. 12 c. 1 q. 5
Larnaca, 2 4

Copper Sulphate—
Amsterdam, 3 t. 5 c. £77
Bordeaux, 14 4 322
Calcutta, 2 51
Corunna, 1 1 27
Galatz, 5 18 150
Johannesburg, 5 6
Konigsberg, 1 3 2 q. 23
Naples 5 8 1 129
Rotterdam, 23 17 3 570
Rouen, 0 12 167

Disinfectants—
Para, 6 c. 2 q. £8
Rio de Janeiro, 9 13
Singapore. 4 1 5

Dried Blood—
Natal, 8 t. 12 c. £72

Glycerine—
Antwerp, 5 c. £9
Kobe, 3 t. 1 3 q. 95
Montreal, 5 9 1 252
New York, 10 2 251
Shanghai, 10 16

Magnesia—
Paris, 116 cs.
Rosario, 5 pks.

Manure—
Nantes. 234 t. 17 c. £270
Teneriffe, 5 64

Nitric Acid—
Para, 1 c. £6

Paint—
Belize, 55 kgs.
Cadiz, 45 1 ck.

Calcutta, 379 80 dms.
Cartagena, 20
Cienfuegos, 2 cks.
Demerara, 200
Hamburg, 41 1
Havana, 1 cs. 4
Hong Kong, 20 dms.
Maceio, 20
Manaos, 70
Montereny, 10
Old Calabar, 30
Para, 4 brls. 4 cks.
Pernambuco, 120 dms.
Progresso, 3 cks.
Rotterdam, 19
St. John's, Nfd, 90
San Juan, 100
Shanghai, 115 dms.
Smyrna, 100
Symi, 50 2 cks.
Talcahuano, 42
Tampico, 3 cs.
Teneriffe, 12
Tongku, 104 1 5
Trinidad, 66 pks.
Valencia, 16
Valparaiso, { 130 / 25 brls.
Vera Cruz, 8 cs. 11 cks.
Ylo Ylo, 4
Yokohama, 400

Painters Colours—

Baltimore, 3 cks.
Callao, 6
Canea, 48 kgs. 1 brl.
E. London, 8 9
Genoa, 12
Hong Kong, 1
Indianapoly, 50 25
Lagua la Grand, 5 6
Leghorn, 33
Lima, 60 cs. 20
Malta, 250
Mayaguez, 2
New York, 2
Piræus, 5 1
Seville, 1
St. Thomas, 16 pks.

Paraffin Wax—

Marseilles, 50 cs.
Patras, 35 kgs.

Phosphorus (Amorph.)—

Hiogo, 40 cs. £420
Yokohama, 10 105

Picric Acid—

New York, 1 t. £89

Potassium Bicarbonate—

Philadelphia, 3 t. 7 c. £159

Potassium Bichromate—

St. Nazaire, 1 t. £42
Vera Cruz, 1 19 c. 3 q. 80

Potassium Chlorate—

Copenhagen, 2 t. 10 c. £75
Hamburg, 2 60
Hiogo, 20 5 658
Kobe, 5 150
Konigsberg, 1 26
Lisbon, 10 5 320
Melbourne, 5 150
New York, 45 1,377
Philadelphia, 12 10 386
Randers, 5 153
Shanghai, { 10 cks. / 8 t. 10 297
Sydney, 5 150
St. Petersburg, 25 760

Potassium Prussiate—

Seville, 5 c. £20

Salammoniac—

Alexandria, 1 t. 1 c. 3 q. £36
Barcelona, 7 11 225
Trieste, 2 66
Varna, 6 9

Salt—

Abonnema, 20 t.
Antwerp, { 40 / 500 bgs.
Axim, 100
Bakana, 40 t.
Baltimore, 100
Batanga, 8
Boma, 1,500 bgs.
B. Ayres, { 100 50 cs. / 296 t. 3 c.
Boston, 125 1,700 sks.
Brussels, 100 cs.
Calcutta, 1,785
Cameroons, 33 9 c
Chicago, 110
Conakry, 17 17
Egwanga, 20
Gefle, 195 11
Ghent, 215
Halifax, N.S., 125
Jersey, 1 10
Lagos, 137
Loango, 20
Malta, 6
Melbourne, 175
Montreal, 740 3
Newcastle, 450
N. Orleans, 340
Opobo, 161
Quebec, 165
Sydney, 130

Salt Cake—

Antwerp, 120 t. £155
Delagoa Bay, 10 2 c. 25

Saltpetre—

Habana, 17 c. £18
Maceio, 17 17
Para, 1 t. 5 28
Rosario, 5 5

Sheep Dip—

B. Ayres, { 5,000 dms. / 1,000 cs. / 1 t. 4 c. £3,320
Boston, 10 cks. 70
Buenaventura, 16 27
Pt. Natal, 2 t. 10 3 q. 35
Wellington, N.Z., 3 12 102

Soap—

Amboina, 500 bxs.
Alexandria, 30 20 cs.
Algoa Bay, 5
Antwerp, 135 1,800
Barranquilla, 1
Bata, 15
Batavia, 1,031
Boma, 2
Bombay, 1,301
Bonny, 300
Calcutta, 100
Callao, 7 cks.
Canaria, 768
C. C. Castle, 25
Cape Lopez, 25
Cape Town, 450 45
Caracas, 1
Cartagena, 5
Colombo, 5
Copenhagen, 10
Curacao, 3
Delagoa Bay, 675 25 5 bdls.
Dominica, 30
E. London, 1,700 133
Gaboon, 25
Ghent, 100
Gibraltar, 320
Harrismith, 100
Hong Kong, 26
Karachi, 563 50
Kimberley, 50
Las Palmas, 276
Lyon, 50
Manta, 50
Matadi, 31
M. Video, 4
Mossel Bay, 75 8
New York, 2
Old Calabar, 168 170
Opobo, 4,860
Para, 750 1
Piræus, 10
Pt. Natal, 1 210 129 63
Pretoria, 20
Salonica, 50
Secondee, 474
Sette Cama, 50
Shanghai, 3,061 2
Rangoon, 6
Rawal Pindi, 10
Rotterdam, 316
Singapore, 290 7
Teneriffe, 208
Trinidad, 300
Toronto, 1,000
Valparasio, 100 4
Victoria, W.C.A., 40
Yokohama, 2
Zanzibar, 250

Soda Ash—

Barcelona, 45 cks.
Boston, 26 tcs. 92
B. Ayres, 150 brls. 260
Calcutta, { 278 kgs. 264 / 200 bgs.
Canea, 25 brls.
Chefoo, 50
Christiania, 120
Christiansand, 11
Ciudad Bolivar, 4
Copenhagen, 730
Corfu, 25
Genoa, 180
Gothenburg, 250
Hamburg, 14
Hamilton, 125
Hiogo, 39
Kobe, 282
Leghorn, 20
Lisbon, 22
Lyttelton, 52
Naples, 32
New York, 400
Oporto, 9 pks.
Palermo, 100
Philadelphia, 64 tcs.
Piræus, 20
Rio de Janeiro, 90
Salonica, 100 brls.
Singapore, 4
Skien, 50
Smyrna, 600
Sourabaya, 10
Syra, 100
Trieste, 100
Venice, 38
Wellington, 7 10

Soda Crystals—

Bombay, 6 cks.
Boston, 280 brls.
Calcutta, 33 kgs.
Cape Town, 44
Constantinople, 160
Gibraltar, 30
Iquique, 100
Limassol, 34
Malta, 167
M. Video, 18
Oporto, 12
Palermo, 20
Philadelphia, 280
Sourabaya, 10
Trinidad, 34

Sodium Acetate—

Barcelona, 17 cks.

Sodium Bicarbonate—

Alicante, 80 kgs.
Antwerp, 12 cks.
Auckland, 40
Bombay, 100
Calcutta, 400
Catania, 120 60 bgs.
Christiania, 30 dms.
Danzig, 30 5 brls.
Dunedin, 10
Genoa, 275 71
Gutujewsky, 100
Johannesburg, 48
Karachi, 500
Kobe, 850
Leghorn, 30
London 20
Lyttelton, 30
Mexico City, 18
Montereney, 20
Montreal, 300 100 bgs. 2 cs.
Natal, 40 20
Pt. Limon, 4 pks.
Rangoon, 10
St. John's, N'fd., 18
Salonica, 85
Seville, 260 60 brls.
Sourabaya, 7 cks.
Tampico, 20
Trieste, 20
Trinidad, 60 bgs.
Wellington, 100 20
Yokohama, 300

Sodium Carbonate—

Boston, 56 brls.
New York, 70

Sodium Chlorate—

Antwerp, 118 kgs.
Boston, 150
Gutujewsky, 100
Havana, 10 brls.
Rotterdam, 28
Vera Cruz, 5 cks.

Sodium Hyposulphite—

Calcutta, 20 kgs.
Montreal, 31 cks.

Sodium Naphthionate—

New York, 9 cks.

Sodium Silicate—

Callao, 10 brls.
San Sebastian, 17

Starch—

Constantinople, 6 cs.

Sulphur—

Boston, 160 t. 1 c. £701
Chatham, N.B., 150 3 639
Montreal, 75 319
New York, 4 9
Para, 5 2

Sulphuric Acid—

Jeddah, 3 c. 3 q. £3
Maceio, 10 cs. 8
Rio de Janeiro, 1 t. 18 c. 14

Superphosphates—

Sourabaya, 102 t. 2 c. 1 q. £510
Stettin, 949 19 1,995
Teneriffe, 20 67

Tartaric Acid—

M. Video, 4 c. £22
Valparaiso, 3 21

Varnish—

Antwerp, 6 cks.
Cabenda, 1 cs.
Callao, 4
E. London, 8 2 brls.
Genoa, 1
Rio de Janeiro, 2
Rotterdam, 3
Tongku, 32 dms.
Valparaiso, 1

White Lead—

Beira, 20 kgs.
Chatham, N.B., 10
Piræus, 3
Tongku, 63

MANCHESTER.

Week ending July 12th.

Ammonia—

Callao, 30 cks.

Bleaching Powder—

Alexandretta, 8 brls.

Calcium Carbide—

Sydney, 8 cs.

Calcium Chloride—

Sydney, 24 dms.

Caustic Soda—

Beyrout, 30 dms.
Tunis, 10

Chemicals *(otherwise undescribed)*

Berlin, 10 kgs.
Beyrout, 10 brls.

Coal Products—

Aniline Oil

Belgium, 2 dms
France, 6

Anilines

Germany, 2 cks.

Aniline Salt

Germany, 1 ck.

Carbolic Acid

Germany, 20 cks.

Naphtha

Paris, 52 bls.
Melbourne, 50 dms.
Sydney, 50

Naphthylamine

Germany, 55 cks.
Switzerland, 6

Pitch

Belgium, 307 t. 9 c.
Holland, 161

Colours—

France, 1 cs.

Copperas—

Ahwaz, 100 brls.
Beyrout, 54

Glue—

Holland, 12 cks.

Linseed Oil—

Jaffa, 30 brls.

Logwood Extract—

France, 2 cks.

Paint—

Alexandria, 6 pns.

Paraffin Wax—

Mollendo, 5 cs.

Red Lead—

Beyrout, 5 cks.

Salammoniac—

Bagdad, 4 cks.

Salt Cake—

Alexandretta, 1 kg.

Soap—

Alexandria, 13 cks.
Germany, 2 pns.
Holland 35 cs.

Soda Ash—

Jaffa, 50 brls.

Soda Crystals—

Tunis, 20 brls.

Sodium Naphthionate—

Germany. 3 cks.
Switzerland, 22

Starch—

France, 3 cks.

Tallow—

Holland, 2 cks.

Tan Extract—

France, 10 cks.

Varnish—

Alexandria, 4 cs.

Zinc Ashes—

Holland, 151 bgs.

GLASGOW.

Week ending July 13th.

Alkali—
Brisbane, 3 t. 15 c.
Ammonium Carbonate—
Christiania, £30
Hamburg, 4 c.
Ammonium Sulphate—
Hamburg, 48 t.
Malaga, £587
Valencia, 2,128
Bones—
Beauvais, 5 t. 14 c. 3 q. 7 lb.
Boracic Acid—
Hiogo, £124
Kobe, 40
Melbourne, 239 12s.
Borax—
Christiania, £15
Hiogo, 58
Johannesburg, 70
Rotterdam, 132
Coal Products—
Benzine
Bordeaux, £153
Creosote Oil
Bordeaux, £1,000
Christiania, 30
Pitch
Bombay, £20
Canada, 407
Stockholm, 37 t. 3 q.
Tar
Canada, £47
Christiania, 2 t. 6 c.
Danzig, 134
Rouen, 51 19
Singapore, 48
Stockholm, 9
Tar and Pitch
Karachi, £365
Rangoon, 71
Colours—
Calcutta, £20
Christiania, 2 t. 13 c. 3 q.
Copperas—
Bombay, £30
Dyestuffs (*otherwise undescribed*)
Victoria, Aus., £60
Dyestuffs—
Fustic Extract
Canada, £65 17s.
Logwood
Canada, £85
Quebrach Extract
Belgium, £68 4s.
Sumac
Melbourne, £100
Gutta Percha—
Rotterdam, £23
Lead Acetate—
Bombay, £65
Linseed Oil—
Canada, 11 t. 5 c.
Christiania, £42
Malta, 7 2
Pt. Said, 1 1 q. 16 lb.
Townsville, 3 13 2
Trinidad, 2
Litharge—
Johannesburg, £53
Logwood Extract—
Stockholm, £75
Magnesium Sulphate—
Bombay, £90
Manganese—
Rotterdam, £120
Muriatic Acid—
Bombay, £105
Nitric Acid—
Karachi, £30
Paint—
Calcutta, £335
Havana, 34
Hong Kong, 70
Townsville, 58
Trieste, 45
Painters' Colours—
Bombay, £188 14s.
Boston, 48 10
Brisbane, 144
Calcutta, 42
Cape Town, 53 5
Delagoa Bay, 47
Malta, 48
Melbourne, 842 19
Singapore, 133
Paraffin Wax—
Cape Town, £ 87
Barcelona, 251
Bombay, 54
Fiume, 30
Rouen, 13
Stockholm, 178
Venice, 23
Potassium Bichromate—
Amiens, £145
Antwerp, 113
Christiania, 22
Paris, 510
Rotterdam, 285
Rouen, 43
Stockholm, 136
Yokohama, 537
Potassium Cyanide—
Delagoa Bay, £195
Melbourne, 210
Pt. Darwin, 892 10s.
Sydney, N.S.W., 315
Recovered Manganese—
Fiume, £92
Rouen, 5 t. 19 c.
Rosin—
Malta, £65
Salt—
Brisbane, 540 t. 12 c.
Soap—
Bombay, 2 t. 19 c. 3 q.
E. London 10 5 2 23 lb.
Queenstown, 1 5
Sodium Bichromate—
Antwerp, 10 t. 17 c. 2 q. 6 lb.
Paris, 17 1 2
Rouen, 29 2 1
St. Die, 5 3 1
Starch—
Bombay, £50
Rotterdam, 53
Sulphuric Acid—
Bombay, £490
Karachi, 163
Rangoon, 327
Varnish—
Calcutta, £32
Singapore, 22
White Lead—
Malta, £42

HULL.

Week ending July 8th.

Ammonium Sulphate—
Stettin, 860 bgs.
Basic Slag—
Reval, 185 t.
Caustic Soda—
Reval, 15 dms.
Chemicals (*otherwise undescribed*)
Abo, 2 cs.
Amsterdam, 18 btls.
Antwerp, 15 cks. 2
Bremen, 2 pks.
Christiania, 34 372 slbs.
Christiansand, 363
Constantinople, 70
Copenhagen, 20 38 pks.
Danzig, 12 11
Gothenburg, 16 11
Hamburg, 199
Helsingfors, 16
Konigsberg, 1 25
Norkoping, 9
Rotterdam, 102 1
Rouen, 13
Stettin, 16 83
St. Petersburg, 3
Coal Products—
Pitch
Antwerp, 207 t.
Dunkirk, 101
Tar
Amsterdam, 9 cks.
Copenhagen, 5
Rotterdam, 6
Cottonseed Oil—
Amsterdam, 11 t. 6 c.
Antwerp, 2 9
Copenhagen, 10 9
Dunkirk, 9 5
Hamburg, 7 4
Rotterdam, 13 1
Stettin, 20 1
Dyestuffs (*otherwise undescribed*)
St. Petersburg, 4 cs.
Linseed Oil—
Antwerp, 5 t. 7 c.
Bergen, 18
Christiania, 4 4
Christiansand, 2 12
Christiansund, 2
Drontheim, 7 16
Hamburg, 2 15
Helsingfors, 3 9
Rotterdam, 5 5
Manure—
Jersey, 20 t.
Paint—
Christiansand, 16 cks.
Stockholm, 1
Painters' Colours—
Amsterdam, 4 cks. 5 cs. 50 pks.
Antwerp, 17 2 12 16 dms.
Bergen, 2 60
Christiania, 28 1 5 pks.
Christiansand, 40
Christiansund, 2 60 dms.
Constantinople, 20
Copenhagen, 12 4 8 1 pk.
Danzig, 3 2
Drontheim, 1 148
Dunkirk, 4
Ghent, 6 36 dms.
Gothenburg, 25
Hamburg, 24 1
Helsingfors, 8
Jersey, 27 pks.
New York, 24
Odessa, 67
Reval, 2
Rotterdam, 46 2
Rouen, 4
Stettin, 58 2 25
Stockholm, 51 2
St. Petersburg, 100
Soap—
Abo, 1 cs.
Copenhagen, 1
Tallow—
Amsterdam, 20 cks. 24 cs.
Reval, 63
Rotterdam, 55
Stettin, 25
Stockholm, 2
Varnish—
Antwerp, 2 cks 1 cs.
Hamburg, 3
Helsingfors, 9
Rotterdam, 5
Stettin, 11 pks.
Waste Salt—
Amsterdam, 20 brls.

TYNE.

Week ending July 8th.

Alkali—
Copenhagen, 1 t. 3 c.
Hamburg, 4 19 1 q.
Rotterdam, 10 9
Antimony—
Gothenburg, 10 c.
Barium Binoxide—
Rotterdam, 7 t. 14 c. 3 q.
Venice, 10 11 2
Bleaching Powder—
Antwerp, 50 t. 15 c. 3 q.
Copenhagen, 5 1 3
Gothenburg, 21 19 1
Helsingfors, 30 3
Rotterdam, 21 17 2
Caustic Soda—
Aarhuus, 1 t. 9 c.
Antwerp, 35 2 1 q.
Christiania, 2 18
Drontheim, 1 9
Genoa, 7 5
Gothenburg, 55 2 2
Helsingfors, 15 13 3
Montreal, 16 14 3
N. Orleans, 22 1 1
Pt. Said, 1
Colours—
Montreal, 2 c. 2 q.
Iron Oxide—
Sebastopol, 2 t.
Litharge—
Gothenburg, 1 t. 2 c. 1 q.
Magnesia—
Hamburg, 12 c. 3 q.
Magnesium Sulphate—
Honolulu 10 c.
Manganese—
Bilbao, 50 t.
Mercury—
Sebastopol, 10 c.
Orange Lead—
Montreal, 5 t. 5 c. 3 q.
Paint—
Antwerp, 9 t.
Copenhagen, 7 c.
Hamburg, 10
Pyridine—
Hamburg, 9 c.
Red Lead—
Aarhuus, 2 t. 10 c. 1 q.
Copenhagen, 2 11 1
Genoa, 17 19
Gothenburg, 4 17 2
Hamburg, 5
Helsingfors, 1 17
Stamboul, 3
Venice, 3 3 3
Salt—
Helsingfors, 25 t. 1 q.
Soap—
Pt. Said, 1 c. 2 q.
Soda—
Christiania, 10 t. 6 c.
Constantinople, 24 7 2 q.
Copenhagen, 2 13 3
Honolulu, 7 1 1
Rotterdam, 10 6
Venice, 13 15 2
Soda Ash—
Ancona, 5 t. 6 c. 1 q.
Bergen, 10
Gothenburg, 68 17 3
Sodium Sulphite—
Helsingfors, 1 t. 14 c. 1 q.
Sulphur—
Drammen, 200 t.
Gothenburg, 150
Superphosphates—
Pernau, 699 t. 19 c.
Tallow—
Rotterdam, 4 t. 15 c. 3 q.
Varnish—
Montreal, 19 c. 1 q.
White Lead—
Gothenburg, 2 t. 11 c. 3 q.
Montreal, 23 9 1

GOOLE.

Week ending July 5th.

Alkali—
Rotterdam, 1 ck.
Chemicals (*otherwise undescribed*)
Amsterdam, 20 cks.
Boulogne, 3
Coal Products (*otherwise undes.*)—
Amsterdam, 42 cks.
Antwerp, 11 1 dm. 2 pks.
Boulogne, 6 2 cs.
Ghent, 2 2 dms. 11 pks.
Hamburg, 25 1
Rotterdam, 130
Coal Products—
Pitch
Antwerp, 975 t.
Dyestuffs (*otherwise undescribed*)
Hamburg, 23 cks.
Manure—
Antwerp, 600 bgs.
Ghent, 79
Painters' Colours—
Amsterdam, 1 ck.
Ghent, 1
Rotterdam, 1 7 pks.

GRIMSBY.

Week ending July 8th.

Alkali—
Hamburg, 20 cs.
Port au Prince, 467 dms.
Rotterdam, 5
Chemicals (*otherwise undescribed*)
Antwerp, 1 ck.
Dieppe, 5
Malmo, 1 cs.
Coal Products (*otherwise undes.*)—
Antwerp, 3 cks
Dieppe, 265
Hamburg, 10 pks
Colours—
Gothenburg, 1 cs.
Malmo, 10 cks.
Painters' Colours—
Antwerp, 12 cks. 16 pks.
Rotterdam, 2 kgs.
Sulphur—
Malmo, 388 bgs.

PRICES CURRENT.

WEDNESDAY, July 19, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	0	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	21	10	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	3	9
,, ,, (grey) Hull ,,	12	1	3
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,,	0	0	4
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	42/6 to 65/-		
Bleaching Powder, 35 % nett ,,	4	5	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	8
,, 50/90 ,,	0	0	9
Carbolic Acid (crude 60°) ,,	0	2	2
,, (crystallised 40°) per lb.	0	0	7¾
,, (liquid 95/97%) per gallon	0	1	0
Creosote (ordinary) ,,	0	0	4
,, (filtered for Lucigen light) ,,	0	0	4¼
Crude Naphtha 30% @ 120° C. ,,	0	0	4¼
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	8	6
Solvent Naphtha, 90% at 160° per gallon	0	0	10
Copper per ton	76	2	6
,, Sulphate ,,	25	5	0
,, Oxide (copper scales) ,,	57	0	0
Glycerine (crude) 80% ,,	25	10	0
,, (distilled S.G. 1250°) ,,	48	10	0
Iodine nett, per oz.	0	7	5½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	15	12	6
,, Litharge Flake (ex ship) ,,	17	0	0
,, Acetate (white ,,) ,,	22	0	0
,, ,, (brown ,,) ,,	17	15	0
,, Carbonate (white lead) pure ,,	18	10	0
,, Nitrate ,,	22	0	0
Lime, Acetate (brown) (ex ship) per ton	4	17	6
,, ,, (grey) (ex ship) ,,	8	0	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	17	10	0
Linseed ,,	22	0	0
Stearine ,,	26	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	5	0
,, Chlorate per lb.	0	0	3¼
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	23	0	0
,, ,, ,, 75/80 % ,,	18	0	0
,, Potash Hydrate Liquid 50 % ,,	12	0	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	8
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	8	15	0
Silver (metal) per oz.	0	2	3⅝
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	0	0
,, ,, (Soda Crystals) ,, ,,	2	10	0
,, Acetate (ex-ship) ,,	12	15	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	8	0	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	7	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	7	7	6
,, ,, (60 % Caustic Soda) ,, ,, ,,	6	7	6
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	3	12	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	9
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate per lb.	0	0	6¼
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	5	0
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide (crystals) ,,	6	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4½
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	6	15	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	24	10	0
Tin Crystals per lb.	0	0	9
,, English Ingots per ton	136	0	0
Zinc (Spelter) ,,	25	17	6
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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Notices.

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning**

Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

CURRENT TOPICS.

MANNHEIM AND ENGLISH ENTERPRISE.

IT is very pleasing to publish in our columns a letter such as that which appears elsewhere in this issue, and the opinions expressed therein may well be considered carefully by many British manufacturers. There is nothing in the letter to negative much that we said last week, and it gives us genuine pleasure to learn that in the matter of broad-minded business principles, the Civic fathers of Mannheim are so far ahead of many other industrial centres. We have read the pamphlet referred to. It is furnished with a good map and a bird's eye view of the city, and contains a useful collection of statistics on which to base an estimate of the economic advantages of Mannheim for industrial enterprise. The water carriage and railway facilities are excellent. There are four chemical works in Mannheim with a joint share capital of £1,220,000.

THE MAYPOLE SURPRISE PACKET.

That you never know your luck until you try, is quite true, but unfortunately it applies with equal aptitude to bad luck as well as good luck, and so it seems to have been with the Maypole Soap Co., Ltd. With the remembrance of the optimistic forecast made by the chairman of the company at the last annual meeting still fresh in the memories of the shareholders, it must have been a shock to see, as we recently did, this company figure in the Winding-up Court.

It seems that the Board relied too much on the floating of a subsidiary company for America, which was contemplated. The inability to carry this through left the company's treasury empty, so that advertising had to be restricted. Now, it is impossible for a new concern in the soap trade to prosper without liberal advertisement, so that the lack of working capital was fatal. The present position really dates from the spring of 1898, when the directors made the mistake of distributing the company's funds amongst the shareholders instead of reserving them for carrying on the business.

Shortly after we first heard of the strange position of the company, we were reminded by a wag in the soap trade that "Maypole Soap was made to *dye*," and so it was; but it was intended to do it one way only, and it was guaranteed not to "stain the hands." It is one thing to dye the dresses of the public, but quite another thing to die the death of a decrepit company.

However, a reconstruction scheme has been proposed which does not make a very heavy call upon shareholders, and so there should be a good prospect of Maypole Soap "living to dye, by dyeing for a living" as we reminded our facetious friend. The directors appear very sanguine, and although their beliefs were not very satisfactorily justified in the past, we think there must be a reasonable outlook for the future if the present circumstances are capably manipulated.

A PROSPECT FOR CALICO PRINTERS.

Time is the touch-stone which tries all things to see if they be of noble metal or base, and so it will be, we suppose, with the new colour printing process which was demonstrated at the London premises of the Printing Arts Co. this week. This invention, the patentee of which is Mr. Ivan Orloff, chief engineer and manager of the Russian Government Printing Works at St. Peterburg, supersedes the old method of colour printing, as the Orloff machine puts down all the colours at once, and as quickly as a single colour could be printed by the old means. What is more, the machine not only prints quicker, but the work is superior as regards register to anything ever produced by the usual means. In the face of such keen competition and fine prices, this invention at least merits close investigation by calico printers.

UNITED AMERICAN GLUE COMPANY.

A MEETING of organisers of the proposed glue consolidation was held recently, at which officers were elected as follows :– President, D. Webster King, of Boston ; vice-president, Fred. Vogel, of Milwaukee ; second vice-president and general manager, King Upton, of Boston ; treasurer, Charles Delaney, of Philadelphia. Louis C. Haughey, of Chicago, will be the general manufacturer.

The directorate includes D. Webster King and King Upton, of Boston ; P. A. Valentine, of Chicago ; Fred. Vogel, of Milwaukee ; Charles Delaney, of Philadelphia ; H. P. Darlington, Louis Steinfeld, John R. Marron, and Louis C. Haughey, of Chicago.

The new company, which is to be known as the United American Glue Company, is to be capitalised at 35,000,000 dols., of which 15,000,000 dols. is preferred, and 20,000,000 dols is common stock. The company will retain in its treasury 5,000,000 dols. of each class of the above stock.

Among the glue plants in the U.S.A. which the United American Glue Co. proposes to absorb are those of Armour and Co , of Chicago, Kansas City, and Omaha ; the five plants of the American Glue Co , of Boston ; the United States Glue Co., of Milwaukee ; the Diamond Glue Co., of Chicago ; Delaney and Co., of Philadelphia ; the Keystone Glue Co., of Philadelphia ; the United Tanners' Glue Co , of New York, Newark, New England, and Canada ; and the F. C. Marquis plant at Quebec. These latter concerns, which control 80,000,000 pounds per annum of the raw product, are under the control of Messrs. Louis Steinfeld, Chas. A. Hess and Guggenheimer, Untermyr and Marshall.

A feature of the consolidation is that it will also include Canadian interests. They are said to have acquired the glue works of F. C. Marquis at Quebec. This establishment will be the nucleus for a mammoth plant to take care of the large Dominion glue trade.

It is understood that the actual transfer of the various plants has not yet been made, and it may be several weeks before the company goes into actual operation. The organisers claim, however, that the successful completion of the deal is assured.

The new company does not have a monopoly of the trade, as several large concerns remain outside. Among these are the Peter Cooper Glue Works which would not sell out except for cash ; Baeder, Adamson and Co , and Tunnell and Co , of Philadelphia, and Swift and Co., of Chicago.

Child Labour in Glass Works.—Last week, at the Home Office, Mr. H Seton Karr, M.P., introduced to the Home Secretary a deputation of members of the glass trade at St. Helens and other parts of Lancashire, representing over 1,800 men, who desired to secure an alteration in the working hours of children. With Sir Matthew White Ridley was Sir Kenelm Digby and other Departmental officials. It was pointed out that the grievance complained of arose out of the Act of 1895, in consequence of boys working during the day at thirteen years of age being deprived of all employment in the night shift which takes place in alternate weeks. The deputation desired that the age at which children may begin the night work should be lowered from 14 to 13. The Home Secretary, in reply, said the Act to which reference had been made rendered it illegal to employ boys between the ages of 13 and 14 in night work. After two and a half years' working of the Act they found that this caused an injury to their trade, and the facts with which they supported their contention would receive his careful attention. His predecessor had admitted that the trade was not an unhealthy one, but still he had no power to make any exemption under the Act. In order to secure an alteration in that Act they would have to make out a very strong case, as the feeling in Parliament was very strong on the question, and the reports which he had received from factory inspectors throughout the country were not in their favour. Indeed they thought the trade might accommodate itself in some way.

CHROME LEATHER INDUSTRY IN GERMANY.

WATCHING THE AMERICANS.

RECENTLY engineers have been sent to America from Germany to study the methods in vogue there. A result of the study of American progress is the establishment of a German chromo-leather industry. It is true the Germans claim to have themselves invented the manufacture of leather with the use of chrome salts, and Dr. C. Heinzerling, of Frankfort-on-the-Main, is named as the inventor of this process, which in the year 1884 was finished by Schulz in America for technical use. This leather appeared first in the latter 80's on the American market. It is said especially to possess greater resisting power against dampness than ordinary chevreau leather. Six to seven years ago German factories commenced to manufacture chevreau from chrome. A firm bought several patents and sent experts to America to study the process on the spot. This factory is furnished with new American tanning machinery which is capable of turning out daily 500 dozen goatskins, and they contemplate raising the output to 1,000 dozen per day. The factory has succeeded in working off hides from various sources with like success, whereas the American factories use but one class of skins. Another German firm is said to have been successful in manufacturing calf, cow, and strap leather with chrome salts, according to a new process invented by Dr. Heinzerling. This success has created great rejoicing in Germany, and German papers conclude from this that the technical and commercial methods of the Americans ought to be studied by proper skilled experts in order to be able to beat the work of the Americans. As to the branches of trade which in this connection are next to be taken in hand, are mentioned the shoe, bicycle, and iron industries.

Aluminium Company, Ltd.—The accounts for the year ended June 30th show a net profit of £19,801., after paying the debenture interest, amounting to £3,825., and writing off £2,076., the amount at debit of the suspense account. The directors recommend the payment of a dividend of 20 per cent. on the share capital of £65,000., which will absorb £13,000 , and that the balance, £6,801., be carried forward. The resolutions for the reduction of the capital by the extinction of three-fourths of the B shares, the remaining one-fourth ranking *parri passu* with the A shares having been sanctioned by the Court, the arrangement has been carried out, and the existing B shares will participate in the dividend declared at the meeting. The amount (£15,000.) by which the capital is reduced, owing to the rearrangement of the B shares, is applied in reduction of the cost of the works at Oldbury. A sum of £11,388 is applied in reduction of the amount at which patent rights stand in the books of the company. This is the sum realised by sale of patents in Germany and Canada during the past year.

Institute of Public Health Congress.—The annual Congress of the Royal Institute of Public Health will be held this year in Blackpool from Thursday, September 21, to Tuesday, September 26, 1899 (both days inclusive). The following arrangements have already been made for the Congress :– On Thursday, September 21, the Most Hon. the Marquis of Lorne will deliver the presidential address. On Friday and Saturday, September 22 and 23, and Tuesday, the 26th, several conferences will be held, and the following are some of the papers to be read : A Century of Smoke Production with Efforts for its Abatement, by Dr. Graham, Medical Officer of Health, Middleton ; Analysis of Milk and Butter, by G P. Bailey, M.A.Dub., F.C.S. ; Composition of Brandy, introduced by Prof. W. R. Smith ; Disposal of Sewage and Trades Waste ; Preservatives in Food ; Analytical Methods ; The Treatment of Sewage, by W. J. Orsman, F.I.C., F.C.S., Public Analyst, Wigan. A health exhibition will be opened by the Most Hon. the Marquis of Lorne in the afternoon of Thursday, Sept. 21, and will remain open until October 14. This exhibition will be free to members of the Congress from September 21 to September 26, both days inclusive. On Friday evening there will be a ball, for the members of the Congress. The Congress dinner will be held on Saturday, September 23. Steamboat excursions to the Lakes and North Wales are being arranged for Wednesday and Thursday, Sept. 27 and 28, the tides not being suitable for steamboat traffic at an earlier period of the Congress week. Other entertainments are being arranged. The railway companies have granted the privilege to anyone proposing to visit the Health Congress to have a return railway ticket for a fare and a quarter on production of a certificate signed by the honorary secretary stating the number who wish to travel and the class. The transactions of the Congress and the proceedings of the Institute will be published in the Journal of the Institute, and the payment of the delegate's fee of one guinea will entitle the delegate to receive copies of this publication for one year. All persons desirous of becoming fellows, members, or associates of the Institute, are requested to communicate with Henry C. Jones, Esq., Solicitor, hon. sec. to the Institute, 197, High Holborn, London. Anyone wishing to attend the Congress should apply to A. Jasper Anderson, Esq., M.A. (Oxon), Medical Officer of Health, Blackpool.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Apparatus for Treating Liquids and Gases. A. Waché and E. Locoge. 14,199. July 10.

Manufacture of Aluminium and Magnesium Alloys. A. G. Brookes. 14,926. July 10.

A New or Improved Process and Apparatus for Cleaning Wool and other Animal Fibres. E. Maertens. 14,232. July 10.

Manufacturing Water Gas. O. Imray. 14,239. July 10.

Producing Calcium Carbide. A. J. Boult. 14,261. July 11.

Improvements in the Treatment of Sulphide and other Ores. J. Swinburne and E. A. Ashcroft. 14,278. July 11.

Manufacture of Soap. W. L. S. van Loo. 14,371. July 12.

Improvements in Condensing Apparatus for Gas Works. J. F. Simmance and J. Abady. 14,575. July 15.

Preventing and Removing Incrustation of Boilers. C. E. McAllister, Alloys of Magnesium: H. Bumb. 14,592. July 15.
R. McAllister, and W. T. Harris. 14,600. July 15.

Artificial Stone. W. Owen. 14,617. July 15.

A Process for Agglomerating Doughy Chloride of Sodium into Compact Blocks. F. W. Golby. 14,644. July 15.

Manufacture of Explosives. E. H. Durnford and G. H. Wadsworth. 14,648. July 15.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in Apparatus for the Manufacture of Superphosphates and other Chemical Manures. D. Crawford, 60, Holly-avenue, Newcastle-on-Tyne. Eng. Pat. 7,074. April 15, 1899.

The semi-liquid material for the dissolving vessels is passed into a chamber constructed underneath the dissolvers, and in which a horizontal conveyer works; the trays on the conveyor being shallow. The gases given off are exhausted from one end of this chamber, thus preventing any escape at the end where the trays discharge the material. As these trays leave the chamber, their contents are broken up by workmen, so that the material readily falls into the boot of an elavator, which lifts the "super" to a revolving screen and dryer. The two latter are described in patents 12,908/96 and 9,576/97. There are four figures.

Improvements in Means or Apparatus for Use in Protecting Iron and Steel by Producing Magnetic Oxide thereon. A. S. Bower, St. Neot's, Hunts. Eng. Pat. 15,191. July 11, 1898.

This is a modification of the well-known Barff-Bower process. The main feature of the improvement is that the amount of steam required is reduced. The mixture of steam and other desired vapours is exhausted from the treating chamber and passed through a superheater by a Körting's jet, the live steam for which keeps the composition of the mixture fairly constant, and enables the vapours to be used over again instead of going to waste. There are two figures.

Improvements in the Manufacture of Slag Wool or Silicate Cotton W. S. Hill, 6, Teresa-terrace, and W. P. Ingram, 2, Blenheim-terrace, both of Coatham, Redcar. Eng. Pat. 17,466. August 13, 1898

When the slag is blown either direct from the furnace or after remelting in a cupola, it is more or less of a sticky nature. To overcome this, from one to two per cent. of soda ash is added to the slag before blowing. If run from the furnace the ash is added as the slag runs into the ladle. If remelted in a cupola it is added to the charge.

Improvements in the Treatment of Refractory Sulphide Ores. F. Ellershausen, 24, Green-street, Blackfriars, London. Eng. Pat. 16,645. July 16, 1898.

When smelting refractory lead and zinc ores without previous roasting, accretions form in the furnace, but by using an exhauster on the down cast from the cupola in addition to the ordinary blast it is claimed that the formation of such accretions is prevented. The exhaust fan must be powerful. By way of example it may be stated that with an ore containing about 20% of lead and 20% of zinc smelted in a cupola 3 feet 6 inches in diameter, it will be convenient to use a down cast pipe of 2 feet diameter connected to a fan of 10 feet diameter and 3 feet in width, making 300 revolutions per minute.

Manufacture of Siccative Oil, mostly from Petroleum. W. L. S. van Loo, Weygang's Oil Products Co., Ltd., Tilbury Docks, Essex. Eng. Pat. 9,689. May 8, 1899.

About 75 parts by weight of resin are melted in 100 parts of heated petroleum. From 2 to 5 parts of quicklime are then added, and while the whole is being actively stirred 3 to 5 parts of water are added in small, successive quantities. If desired the lime can be slaked first and added afterwards. The drying powers of the siccative oil are increased by substituting zinc oxide for part of the lime, which is done by adding a solution of zinc sulphate to the hot mixture when the insoluble sulphate of lime settles out.

IRON ORE AT DOVER.—In pursuance of our remarks on this subject, we subjoin an analysis of the ore. When the time does come for working it, no great difficulties are to be expected. The floor and roof are fairly good, and probably some form of pillar and stall will have to be adopted, care being taken not to crack the superincumbent strata to such an extent as to let in the water from the heavily-watered sandy beds.

	Per cent.
Metallic Iron (Fe) ...	35·00
Lime (CaO) ...	6·00
Phosphorus (P)	0·35
Sulphur (S) ...	0·05
Insoluble matter	13·5

This analysis, which does not take into account the oxides, is made on the crude dry ore.

STOCKPORT SEWAGE WORKS.—These works were opened formally on Wednesday. The company inspected the sewage tanks, the filtration beds, the sludge-pressing arrangements and the effluent. Lime is mixed with the sewage by the action of centrifugal pumps, and the sewage is then discharged into tanks of which there are eight, each 75ft. by 39ft. by 6ft. 9in., after which the effluent is sent upon land prepared to receive it, and there filtered before being turned into the river. The main intercepting sewer, buildings, reservoirs, and other works have been constructed by Messrs. T. and W. Meadows, contractors, Heaton Norris; the engines and pumps were supplied by Messrs. J. & H. Gwynne, of Hammersmith; Mr. Daniel Eadie was the contractor for levelling and draining the outfall land. Testimony was borne to the care with which the works had been carried out, and hopes were expressed that the Stockport Corporation might prove to have been more fortunate than some of their neighbours in regard to the disposal of the sewage and in meeting the requirements of the Mersey and Irwell Joint Committee.

BLAST FURNACES DAMPED DOWN AT ASKAM.—Two large blast furnaces at Askam-in-Furness, belonging to the Askam and Monzell Hematite Company, were banked on Wednesday. The management of the works posted notices at the works on Tuesday to the effect that several of the employés had approached the management professing to be delegates for other classes of workmen. This would interfere with the direct personal relations existing between employer and employed, and the management were of opinion that it was detrimental to all concerned. They also gave notice that the men now employed at the works would be dispensed with on August 5th. It is stated that the men have held meetings lately to constitute a union to regulate the relations with the management, and have attempted to carry out their object. There seems, however, to be no dissatisfaction with regard to the wages. The steps taken will entail a heavy loss on both sides, as the scarcity of pig iron will be greatly increased by the damping down of furnaces which have done such efficient work for the last few months. The furnaces are the chief industry at Askam, and several hundreds of men will be thrown out of employment.

FIRE AT AN OIL REFINERY.—A serious fire broke out at half-past nine on Saturday night on the premises of Messrs. Sadler, Frith, and Ross, oil refiners, Upper Ground-street, Stamford-street, Blackfriars-road, London. The scene of the outbreak was a large brick and timber building immediately overlooking the Thames at Sadler's Wharf. The building is in the centre of a district of wharves and factories lying between Stamford-street and the Thames, a locality in which several large fires have previously worked havoc and destruction. Messrs. Sadler's premises are next to a large coal wharf. There are also in the same district the South London Rice Mills of Messrs. Denny and Sons, the timber yard and wharf of Mr. Charles Murrell, and the Union Cold Storage Company's premises. The fire was discovered at half-past nine by a workman living in one of the small houses that adjoin the works, and, in response to the alarm, the fire engine from Waterloo Bridge-road was quickly on the scene. Other engines came up rapidly, several from headquarters in Southwark Bridge-road, and others from Blackfriars Bridge-road, Tooley-street, Kennington, Farringdon-road, and Camberwell. In less than half-an-hour there were many engines, in addition to the fire floats from the Waterloo river station. In less than an hour it was evident that the fire was well under control. The oil warehouse was practically burned out, the fire had spent itself, and the firemen prevented the flames from spreading to other warehouses. The official "stop" was given soon after half-past ten, when only the bare walls of the oil warehouse were left standing. The cause of the outbreak is unknown.

Correspondence.

**** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

MANNHEIM AND ENGLISH ENTERPRISE.

(To the Editor of the Chemical Trade Journal).

Sir,—The leader on "Trade Tactics and Competition" in the last number of the *Chemical Trade Journal* may lead to the belief that the erection of foreign—and more especially of British—manufactories in this district would not be pleasing to the Government, public, or press of this country.

Separately I beg to send you a book, which by order of the Mannheim Town Council has just been issued in the English language, entitled "Mannheim and its Harbour: a Sketch of the City and its Economic Development." This book was prepared as a hearty invitation to foreign—and particularly to British—manufacturers, to take advantage of the favourable situation of Mannheim and its neighbourhood for the erection of branch works.

You will, no doubt, arrive at the conclusion by the contents of this little work that every enterprise of English industrials here will be hailed by the authorities and the public as a welcome increase to our industry, and that such new works will find every assistance.

It is true, and not surprising, that the soap-makers in South Germany were alarmed at the news of the Sunlight Soap Co.'s settlement near Mannheim; but their petitions to Government and press have done valuable service to the new comers, who indeed will profit by the unintended advertisements made on their behalf. There is, however, no inclination on the part of the Government (nor any legal possibility) to interfere in favour of the petitioners, or to throw obstacles into the way of any enterprise of whatever nationality.

The little book to which I referred can still be had, I believe, by everyone interested on application to the Mayor's office at Mannheim.

Yours, etc.,

Mannheim, 24th July, 1899. Berthold Levy.

[See also page 65.]

ANSWERS TO CORRESPONDENTS.

U. A. Co.—The entry was emphatically caustic soda, and we cannot get behind the Government returns. We take it you approached the Customs, and they advise you it was an error. If so, we are obliged to you for taking it up and letting us know We are tired of finding fault with such official inaccuracies, but you will see we cannot presume to alter an entry as plain as the one in question.

M.R. (Barmen).—Sorry we cannot give you the name of the firm. We have doubts since the date of our note if the expectations then entertained have been realised.

I. and B.B.—We have delayed answering in order to look more closely into the matter. We fail to find any of the regular shipments you refer to. The items are under observation weekly, and are recorded, but the Ship Canal seems a blank in this connection.

R.E.W. (Bosnia).—The prices run pretty much on a level with British values, owing to the keen competition. The nearest actual quotations we can give you are:—80 to 85 cents per 100 lb. at New York for the alkali and $1·60 to $1·65 per 100 lb. for the caustic. There are only 2,000 lb. in their ton.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

At the Manchester City Police Court on Monday, before Mr. Headlam, the hearing of the summons against Messrs. Hardman and Holden, chemical manufacturers, Miles Platting, for allowing noxious fumes to escape from their works, was resumed (*C.T.J.*, 633, p. 22). The proceedings were taken under section 114 of the Public Health Act, 1875, and this case was the first of a series instituted by the Sanitary Committee of the Manchester Corporation against chemical manufacturers in the Miles Platting district, in respect of what is alleged to be a public nuisance. Mr. Rhodes again appeared in support of the prosecution, and the defendants were represented by Mr. Sutton. On the occasion of the last hearing it was stated that there were serious complaints from the district of Miles Platting, and the difficulty was to localise the works which emitted the effluvia. The defendants carried on various processes of distillation, including that of coal tar and benzol, and the manufacture of sulphate of ammonia, sulphuric acid, and pyridine. In all these processes, unless very great care was taken, it was possible for effluvia, both injurious to health and a very great nuisance to the inhabitants, to be given off; and in March last year it was complained that affairs had got to such a pass that proceedings ought to be taken It was further stated that sulphuretted hydrogen turned wood and stone blue, and that the neighbourhood of the defendants' works had been so coloured.

Mr. Sutton, before the case was proceeded with, complained that representatives of the Corporation had, during the absence of Mr. Holden, entered the works without permission and made all sorts of inquiries as to the way in which their business was carried on. They claimed that this was a matter in which they could obtain a justice's order to enter the works, but he (Mr Sutton) contended that it was no such thing. The justices had no power to make any order of the kind. The Corporation had made no communication to Mr. Addleshaw, the defendants' solicitor, as to their intention in this respect; had they done so the defendants would have been perfectly willing to give every facility for duly authorised persons to go over the place, and would not have objected to a surprise visit. They had, however, forced themselves on the premises in a high-handed manner, and he asked the court to say that such a thing should not be done in the future.

Mr. Headlam said he could not pronounce judgment without hearing the other side.

Mr Rhodes said he thought there was power under the Public Health Act to obtain a magistrate's order.

Mr. Headlam pointed out that in this case they went without one. It would certainly have been more courteous to have given notice that they were going.

Mr. Sutton: It is a most disgraceful proceeding.

Mr. Rhodes: At any rate, if we were discourteous, we were received with every courtesy when we got there.

Mr. William Thomson, analytical chemist, gave further evidence as to the emission of noxious fumes from the defendants' works.

Cross-examined by Mr. Sutton, the witness admitted that he went to the works to find all the fault he could, but denied that he only found small matters to complain of.

Mr. Richard Hall, district surveyor to the Manchester Corporation paving department, said he had found two connections between the Vickers-street sewer and the defendants' works.

Other witnesses for the prosecution were afterwards called, who bore out, in the main, the evidence already given.

Further evidence as to the presence of noxious gases in the atmosphere near the works was given by Mr. R. M. Rowe, an inspector in the Sanitary Department. In cross examination, witness said he considered the defendants' plant to be a very good one indeed, and that when he had paid surprise visits to the works he had not found anything constituting a nuisance. Witness did not, however, agree with the suggestion that the defendants would sustain pecuniary loss by the negligent emission of sulphuretted hydrogen. There were probably no works from which a small quantity of naphthaline did not from time to time escape, though he did not assent to the proposition that this was unavoidable.

Dr. Niven, medical officer of health for the city, was the last witness called for the prosecution. During the past few years, there had been, he said, many complaints of the nuisances caused by chemical works, the majority of them referring to the defendants' works. Such nuisances as had been complained of could have been caused by these works, but he was not prepared to go to the extent some of the witnesses had done. Serious nuisances could in fact only arise from some act of carelessness or some accident. The question of odour was almost a matter of individual idiosyncrasy.

Mr. Sutton questioned the witness as to his observance of objectionable smells in the neighbourhood of the defendants' works. Dr. Niven denied that the death-rate of Miles Platting was lower than in many parts of Manchester, though it was lower than in the Ancoats, St. George's (Rochdale Road), and the Central districts of Manchester. Mr. Sutton, in presenting the case for the defendants, called attention to the clause in the Act of Parliament under which the prosecution was instituted. That clause provided that any firm causing a nuisance by the emission of any effluvia might be proceeded against unless it were proved that the best possible means had been used for abating or counteracting such nuisance. If that were proved, the jurisdiction of the court would be ousted. It was a remarkable thing that there was no suggestion that the best practicable means had not been adopted for the abatement of any nuisance from these works. A curious position had arisen in the case. The proceedings were being taken against Messrs. Hardman and Holden by the corporation of Manchester, and it was stated by one of the witnesses called by the prosecution that the nuisance from the Holt Town works of the corporation was a great deal worse than the nuisance now complained of. It was remarkable that offenders in a worse degree should be called upon to prosecute the defendants. Referring to the evidence which had been given, the learned counsel said he considered that a weaker case had never been presented. Some of the witnesses stated that they had seen no cause for complaint against the defendants for some few months past, whilst others said that the objectionable smells had continued to trouble them. On this occasion Mr. Holden was very anxious to have the matter sifted to the bottom, for this was the third time he had been attacked.

The further hearing of the case was adjourned.

Reports of Companies.

GAS LIGHT AND COKE CO., LTD.

The report of the directors states that the accounts for the past half-year show that, after providing for fixed charges, there remains a balance available for distribution of £506,888, out of which the directors recommend a dividend on the ordinary stock at the statutory rate of £4. 18s. per cent. per annum, carrying forward the sum of £139,557. to the credit of the current half-year. This dividend is equivalent to one of £12. 5s. per cent. per annum on the "A" ordinary stock, as existing prior to its conversion by the Company's Act of 1898. It is satisfactory to the directors to be able to report that, notwithstanding the mildness of the weather during the early months of the year, there has been an increase in the quantity of gas sold during the half-year of 174,586,000 cubic feet, equal to 1·6 per cent. In other departments the business of the company has progressed satisfactorily. Owing to the continued activity in the market for gas coal and to the increase in the rates of freight, the prices at which contracts for the company's supplies for the current twelve months have been made are higher than those of last year. The increases during the past two years have ranged, according to the quality of the coal, from 1s. 6d. to 2s. per ton. The directors, however, are able to report that the increase in revenue from the residual products during the past half-year has again been sufficient to meet the addition to the cost of coal. The company's Bill for further capital powers, which received the approval of the proprietors in January last, passed through all its stages in the House of Commons. Upon its coming before a Committee of the House of Lords, however, it was unfortunately rejected, their lordships considering that the preamble of the Bill was not proved. The loss of this measure, which, as regards the mode in which the money was to be raised, was drawn with the fullest consideration for the interests of consumers of gas, and against which no evidence was tendered in support of the opposing petitions is greatly to be regretted, and has compelled the directors to restrict the extension of labour-saving appliances and other contemplated improvements at the company's several works which have for their object increased economy in working.

SCHIBAIEFF PETROLEUM CO., LTD.

The directors' report for the financial year ended April 12 last states that the profits of the Russian company (Messrs. S. M. Schibaieff and Co.), after deductions for reserve, sinking, and pension funds, as required by its statutes, amounting in all to Rs.1,91, 944, or £20,311, and for taxes paid to the Russian Goverment, amounting to Rs.81,473, or £8,621., are Rs.7,02,398, out of which they have declared as dividend Rs 7,00,000, or £74,074. To this must be added the revenue earned by this company in respect of loans to the Russian company, and from other sources £2,703., making an amount of net profit by the London company of £76,777. Of this the directors have declared as available for dividend £74,687., leaving a reserve of £2,090. carried forward. Two interim dividends on the preference shares and an interim dividend upon the ordinary shares at the rate of 10 per cent. per annum have been paid, leaving a sum of £31,875. The directors propose to pay 8 per cent. on the ordinary shares, being a final payment, to make up 13 per cent. per annum, and a further dividend of ½ per cent on the preference shares for the past financial year, being one-third of the amount available for dividends, after payment of 12 per cent. on the ordinary shares. The Russian Government has intimated its entire approval of the working of the company in Russia and its willingness to facilitate their business. In virtue of the right of this company, as shareholders of S. M. Schibaieff and Co., to appoint directors for the conduct of the business in Russia, the directors chose the following gentlemen, who were duly elected, and have since conducted the affairs of the Russian company to the entire satisfaction of the board: A. W. Wagstaff, A. F. Deroujinsky, D. N. Sacker, V. Barcheff (substitute). The share capital of the Russian company, which at the time of its acquisition was Rs.25,00,000, has since been increased by the issue of a further Rs.10,00,000 in shares to the London company.

DIVIDEND.

PRICE'S PATENT CANDLE CO., LTD.

The accounts for the six months ended June 30 last show, subject to audit, a profit of about £44,800, and the directors recommend the declaration of a dividend of 18s. per share.

ENGLISH ENTERPRISE LEGALISED IN RUSSIA.—The board of the Anglo-Russian Petroleum Company have received advice from St. Petersburg that their recognition as an English company to hold and work property in the Caucasus has been granted by the Imperial Government.

NOTES ON FOREIGN CHEMICAL TRADE.

BOSTON.

THE chief imports at Boston, last year, were:—Chemical drugs and dyes, £820,943.; salt, £13,800.; paints, £11,532.; fertilisers, £10,641.; bones, etc., £9,207.; soap, £5,133.; chrome sulphur ores, £2,612.

Soapstone in Flour.—The Secretary of the State Board of Agriculture (Portland, M.) during the past year issued a circular notice for the information of the public, cautioning them against an adulteration termed "mineraline," which the manufacturers claimed was being extensively used in high and medium-grade flour, also in bread and feed-meal. Chemical analysis proved "mineraline" to be ground soapstone. The manufacturers in urging its adoption and sale, claimed that when mixed with flour the latter became whiter, etc., and by this adulteration an increased profit to the retailer was assured.

BALTIMORE.

Drugs and Chemicals.—It is reported that the wholesale drug trade was better in 1898 than it has been for the past 10 years, and the manufacture and sale of chemicals have increased about 25 per cent. Baltimore is the second city in the United States—Philadelphia being the first—for the manufacture of drugs and chemicals. It is also engaged to a great extent in the sale of crude drugs. Although manufacturing has been very flourishing, the retail sale of drugs has been most unsatisfactory, doubtless owing to the existence of too many retailers. It is said that the sale of patent medicines has nearly fallen off 25 per cent, because of the cutting of prices, which leaves no profit to the druggist.

Slag Cement.—In February last year a cement company began operations in Baltimore. The slag from the furnaces of the Maryland Steel Company is used, and about 50 men are at present employed. This mill is said to be the third of the kind in the United States, and the only one in Maryland. The company makes its own barrels.

Imports.—Last year, the chief items of interest were: Chemicals (free), £149,152.; nitrate of soda, £25,859.; chemicals (dutiable), £53,694.; salt, 4,670 tons, valued at £2,213. The exports of chemicals were £28,250.

NORFOLK.

There are ten fertiliser factories in this district, and two wood-creosoting plants. The exports included: Soap, £8,518.; cottonseed oil, 908,780 gallons, worth £218,226.; phosphates, £65,590.; tallow, £21,534.

Chemical Imports were of sufficient interest to be given in detail:—

Articles.	Value. Dollars.
Land plaster	1,767
Sulphate of ammonia	16,278
Nitrate of potash	37,187
Sulphate of potash	8,926
Manure salt	42,711
Kainit	31,869

NEW YORK.

Sugar Manufacture.—The total consumption of sugar in the United States is returned at 2,047,344 tons in 1898, as compared with 2,071,413 tons in 1897, showing a decrease of 24,069 tons, equal to a little over 1 per cent. The consumption of 1898 was made up as follows:—317,447 tons of domestic cane sugar, 33,960 tons of domestic beet sugar, 5,000 tons maple, 300 tons sorghum, and 1,700 tons molasses, making a total of 358 407 tons of domestic production, 1,432,847 tons of foreign cane sugar, 179,465 tons of foreign raw beet sugar, and 26,625 tons of foreign refined, a total of 1,638,937 tons of foreign production. The amount of refined sugar which went into consumption in 1898 was 1,855,533 tons, of which only 26,625 tons, or about 1·4 per cent. were manufactured by foreign refiners; in 1897 the figures were, total refined sugar 1,958,343 tons, of which 77,288 tons, or 3·95 per cent. were refined abroad. The amounts refined by beet sugar factories in the United States were 27,960 tons in 1898, and 28,051 tons in 1897. The difference in price between raw and refined sugar averaged about 3/8d. per lb. The importation of sugar from Europe fell from 637,426 tons in 1897 to 206,087 tons in 1898, chiefly in consequence of the countervailing duties placed on bounty-fed beet sugar.

The manufacture of beet sugar is assuming large proportions in the United States. In the State of New York the factory at Rome has again had a successful year, and a new factory at Binghamton is said to be doing well; a number of factories are being built in Michigan, one in Illinois, which is likely to be followed by a second, and others are being built or are in contemplation in Iowa, South Dakota, Kansas, Nebraska, Wyoming, Montana, and Idaho. These, with existing sugar mills, notably those in California, are expected to produce 200,000 tons of beet sugar in 1899.

Foreign Trade.—The following summary of the foreign trade of New York is interesting :—

Country.	Value. Exports. £	Imports. £
Great Britain and Ireland ..	35,232,400	14,400,044
British Possessions	8,642,432	7,072,318
Germany	12,025,556	11,308,289
France and Possessions ..	6,752,975	9,584,545
Belgium	5,080,874	1,170,188
Spain and Possessions	1,962,797	3,474,188
Netherlands	5,786,142	2,166,022

CHICAGO.

Bridge Building Extraordinary.—At the Pencoyd ironworks, in a neighbouring State, a seven-span bridge, of a total length of 1,100 feet, has been completed, and is being erected across the Atbara River in the Soudan, near Khartoum. The order was placed with the Pencoyd ironworks, the Company agreeing to build the structure within seven weeks, though it was actually completed within six weeks, whilst British builders stated that it would require seven months to complete.

British Trade.—The amount of salt sent from the United Kingdom to the U.S.A. was 79,213 tons compared with 92,678 tons in 1897 ; alkali, 855,939 cwts. against 1 925,400 cwts ; bleaching materials, 738,016 cwt. against 754,300 cwt. in 1897.

ST. LOUIS.

Paints.—While the figures are not yet known, St. Louis' trade in paints and oils has been the best during 1898 for many years. St. Louis is naturally for these articles the distributing point of the west, south, and north, and the demand is large. The sales of paints and paint oils for 1897 were, in round figures, £1,000,000. For 1898 it is estimated that the sales will exceed those of the previous year by fully 15 per cent. One of the largest firms in St. Louis states that their business has been exceptionally large this year, and it is safe to say the same regarding other large firms in St. Louis, prices having materially advanced.

Minerals and Ores.—The annual report of the State Mine Inspector reports both lead and zinc ores wonderfully increased for the year ending June 30, 1898, the increase in lead being 6,283 tons, and of zinc ore 46,520 tons. The prices for lead ore have been better than for the former year, but they did not reach the proportion increased in the prices on zinc, especially during the latter part of the year.

The output of lead was 73,687 tons and sold for £622,211. The output of zinc ore reached 139,668 tons, and sold for £585,464. The total value of the metals was £1,207,675., an increase over the former year of 66 per cent. There has also been a large increase in the output of tripoli and barytes.

PANAMA.

Soap.—This market is held by the San Francisco manufacturers for common white household soap, which is shipped f.o.b. at 97 50 c. gold per case weighing 45lbs. each. The freight to Panama from San Francisco is 7 dol. gold per 40 cases. The case contains 20, 25, 30, 35, 40, 50, and 60 bars each, those containing 25 and 50 being principally in demand, and retailing at 20 c. and 10 c. (3⅜d and 1⅝d.) respectively. The annual consumption is approximately 15,000 cases. There is also a local soap manufactory which turns out a fair but watery article, and does a large business with the interior of the Department, where, not having to pay import duty, and quality being a minor consideration, it meets with a ready acceptance.

Chemicals and Freight.—The principal reason for obtaining paper from the States is cheaper freight : freights from Great Britain being in this respect prohibitive. The same reason is assigned for ordering anhydrous ammonia from New York, which is much used in the ice factory. It can be obtained much cheaper f.o.b. Hamburg, but freight upon the cylinders, both empty and filled, precludes its being ordered from Europe. While dealing with the subject, it may not be inopportune to record a specific case of prohibitive freight. Last year, a gentleman requiring a small quantity of chemically-pure hydrochloric, nitric, and sulphuric acids, for scientific purposes, ordered ½lb. by weight of each from a prominent West-end chemist. The acids, which cost originally 1s. 3d., arrived in due course, with them a freight note for £1. 10s. ! Later on, the same individual ordered a quantity of other chemicals from New York, and amongst them were some of a highly inflammable and explosive nature, yet the expense entailed was only 15 per cent. of the net value of the goods, which were worth 30 dol. gold. Crude drugs are imported principally from England, but chemical products arrive generally from Germany, and when required as a matter of urgency these German products are obtained upon equal terms from the States. In this special line, while Germany is rapidly increasing her trade, France is with equal rapidity losing ground.

CALAIS.

Chemicals, etc.—There are three lime-works in the neighbourhood of Marquise, but prices are said to have gone down 4 fr. per ton, in consequence of foreign competition.

Phosphates are found in the neighbourhood of Caffiers ; annual production about 500 tons, prices lowered in consequence of competition from Belgium, Algeria, and America.

There is a depression in the *salt* trade also, the competition of the "Salines de l'Est" making prices low.

There are four *soap* establishments, employing a small number of hands, and turning out annually about 3,000 tons of soft soap and 200 tons of hard, valued at £20,800. and £3,200. respectively.

The *sugar refinery* at Pont d'Ardres is one of the finest in France, employing 650 men, and using about 134,000 tons of beet, producing 152,900 bags (of 2 cwts.) of rough sugar. There is some rise in prices and the present situation is favourable owing to the good quality of last year's beets.

Imports and Exports.—Last year 31 tons of bones and hoofs were imported, all from the United Kingdom. Chemicals, 228 tons, also from Great Britain. The chief exports were 670 tons to Great Britain, coals and patent fuel 22,256, all to this country ; glucose 97 tons, ochres 217 tons, natural phosphates 1,344 tons, potash (and carbonate) 446 tons, being a decline. The United Kingdom was the destination of all these products.

AMERICAN PHOSPHATE PRODUCTION IN 1898.

ACCORDING to the advance report of the Director of the United States Geological Survey, the production of phosphate rock in the States was without material change in the five years from 1893 to 1897 inclusive, the smallest output during that period being 930,779 long tons in 1896 ; the largest, 1,039,345 long tons in 1897. The annual average production for the five years was 989,398 long tons. The production in 1898 showed a notable increase, amounting to 1,308,885 long tons, 269,540 long tons, or 26 per cent., more than the output in 1897, and 319,487 long tons, or 32 per cent., more than the average production during the preceding five years. The increased production was made up by a gain of a little over 48,500 long tons from Florida, an increase of about 42,000 tons from South Carolina, and of approximately 180,000 tons in Tennessee. The increase in Tennessee was nearly twice as much as that of Florida and South Carolina combined, and almost equal to the total production in the State for the three preceding years.

The value of the product in 1898, while more than that of 1896 or 1897, was less than that of any other year since 1891, with one exception (1892). In 1891 the product was only 45 per cent. of the product of 1898, whereas the value of the product in the latter year was 200,000 dols. less than that of 1891. The average price for rock in 1891 was about 6 dols. 20 cents ; in 1898 it was 2 dols. 65 cents.

Prior to 1892, when the chief sources of supply were the land and river phosphate beds of South Carolina, prices were comparatively steady at from 5 dols. to 6 dols. per ton. In 1892 and 1893, with the large production from Florida, prices began to go down, and much of this decline was due rather to the inferior rock thrust upon the market as a result of speculating fever and boomers' than the actual production. By the time the phosphate mining industry of Florida had settled down to a firmer and legitimate basis, the Tennessee product became a factor in the market. The effect of the bringing in of this new supply is exhibited significantly in the increase for 1897 and 1898.

	1897		1898	
FLORIDA.	Quantity.	Value.	Quantity.	Value.
Hard rock	360,147	1,063,713	366,810	1,396,108
Soft rock	2,300	4,600	....	....
Land Pebble..	92,132	180,794	155,084	293,688
River Pebble..	97,763	244,408	79,000	158,000
Totals	552,242	1,493,515	600,894	1,847,796
SOUTH CAROLINA.				
Land rock	267,386	748,050	298,610	856,225
River rock	90,900	238,522	101,274	251,047
Totals	358,280	986,572	399,884	1,107,272
TENNESSEE.	128,723	193,115	308,107	498,392
Gr. total ..	1,039,345	2,673,202	1,308,885	3,453,460

The statistics of exportation are as follow :—

	1897.	1898.
To United Kingdom ports.....	33,073	32,269
To Baltic ports.....	95,646	100,562
To Continental ports	186,516	207,046
To Mediterranean ports	32,627	15,986
Total foreign shipments	347,862	356,863

The substantial yearly increase in shipments shows that the Florida high grade rock continues in favour with the superphosphate manufacturers of Europe. The figures show that a total of 2,134,895 long tons of high grade phosphate rock have been shipped to European manufacturers during the nine years of exploitation.

In commenting upon the condition of the industry in 1897 Messrs Auchincloss Bros., of New York, state that in their opinion the hard rock industry was emerging from the unhealthy state which had prevailed for several years. This opinion seems to have been confirmed by the slow but sustained advance in prices, f.o.b., which begun early in 1898, but which had only a moderate effect in increasing the output.

In addition to the growing European demand for high grade rock the situation in Florida has been considerably improved by the steady reduction of stocks on hand. The statistics of stocks carried forward at stated periods in 1897 and 1898 are shown as follows :—

	1897.	1898.
January 1	135,494	86,064
April 1	133,714	85,182
July 1	94,514	65,632
October 1	64,694	43,579

The exhaustion of small mining properties and the increasing difficulties of mining are placing the industry under the control of comparatively few concerns. Detailed figures in this connection were given in the report for 1897, and as no discoveries of importance have been made during 1898, although the prospecting forces have been continuously in the field, the exhaustion of such properties is naturally now more apparent than it was twelve months ago. The difficulties of mining are also increasing, as at the lower levels the removal of water greatly impedes operations and increases cost.

The miners who have survived the speculative era of the past few years, profiting by their experience and appreciating more fully the growing value of their unworked land, are working more in harmony and with a view of obtaining a fair profit. The indications are that the industry has passed the speculative period and is settling down as a legitimate business.

In the early days of the industry the unfortunate impression that the high grade deposits of Florida were practically inexhaustible was created in the minds of both miners and manufacturers by the report of a well known American statistician estimating the valuable deposits of high grade rock in Florida at 133,000,000 dols. Experience and ascertained facts have proven this estimate to have been erroneous and misleading, for after nine years of exploitation and actual shipment of only 2,134,895 tons, so many supposedly "unlimited deposits" have been abandoned as exhausted, and miners are daily meeting with increasing difficulties in their work.

Miners and manufacturers have alike suffered severely from this impression, and are to be congratulated on the healthier conditions of the industry—the conservative miners are obtaining better prices for their phosphate, and manufacturers are having the cost of their raw material on a more stable basis.

While the improved prices will no doubt stimulate production, it is probable that the prospective increase cannot more than meet the growing demand of Europe and the increasing requirements of the new foreign and colonial market.

It should also be clearly understood that the f.o.b. market price of to-day no more than returns a reasonable remuneration to the miner for the increasing difficulties of mining, the cost and steady depreciation of plant and the progressive exhaustion of mining property, and if the demand for Florida high grade rock continues to increase at the average rate of the last three years the trend of business will be toward a higher level.

AMERICAN CHEMICAL ITEMS.—The Tennessee Coal, Coke, and By-Product Company has been organised at Harriman, Tenn., to introduce the Kenival coking process. Gen. J. O. Wilder, of Knoxville, is president; A. H. Gillingham, Philadelphia, vice-president; E. O. Thorndike, Harriman, secretary and treasurer; assistant secretary, G. A. Dreutzer, Chicago; solicitor, Hon. Jerome Templeton, Knoxville. . . The Slingluff Chemical Company, of Baltimore, Md., has been absorbed by the American Agricultural Chemical Company, of Connecticut. The purchase price is said to be $40,000. The machinery and stock were sold for 50,000 shares of common stock and 50,000 shares of preferred stock of the American Chemical Company. . . The works of the Moro Phillips Chemical Works, at Camden, N. J., were partially destroyed by fire recently. The fire broke out in the fertiliser department, and extended to the glauber salts building, and this structure was also totally destroyed. While the firemen were fighting to keep the flames from extending to the storehouse, which if it caught meant the destruction of the whole plant, the muriatic acid building took fire. The acid house was saved from total loss. The store-house was also saved. The loss to building, stock and machinery is placed at 50,000 dols., fully covered by insurance.

Trade Notes.

THE EAST INDIAN INDIGO CROP.—By cables just to hand from Calcutta, we learn that bad weather continues in all the indigo growing districts, with very unfavourable effect upon produce It is also reported that sowings in the north-west provinces are on a much smaller scale than last year. Instead of an out-turn of 125,000 to 130,000 maunds as estimated six weeks ago, to-day's prospects point to a crop not exceeding 100,000 to 105,000 maunds, which will be very considerably below the average, although improved climatic conditions may still bring about a better result than at present appears probable. The effect on the London market has been a general advancing of limits, so that buyers to-day would have to pay from 2d. to 3d. above the recent sale rates, whilst some holders have withdrawn their marks from the market altogether.

MANCHESTER GAS DEPARTMENT PROFITS.—Alderman R. Gibson, Deputy Mayor, presided recently at a special meeting of the Gas Committee of the Manchester Corporation. Mr. Charles Nickson, superintendent of the Gas Department, submitted an abstract of the accounts of the department for the year ended 31st March, which was received and adopted. The accounts, which have been duly audited by Messrs. David Smith, Garnett, and Co., showed that the gas undertaking has once more had a very successful year. There was an increase in the consumption of gas during the year of 7·31 per cent. over the previous year, the previous five years showing an average yearly increase of 5·24 per cent. only. Coal was consumed to the extent of 426,831 tons, as compared with 407,236 tons in the previous year. The income of the department for the year just closed was £594,970., as compared with £553,642. last year, being an increase of £41,328. from rentals and sales of coke and ammonia water. Both from within and from beyond the city there has been an increase of receipts from rentals. As to expenditure, although the price of coal has gone up, the department yet paid rather less per ton last year than in the previous year because they were well bought at the outset, and they used oil in the manufacture of carburetted water gas in lieu of the more expensive cannels. The net profits on the year's working amounted to £74,052. 10s 10d. Out of this £51,200. was handed over to the city fund in relief of the rates, £1,192 18. 4d. has been placed to a suspense account for carburetted water gas, and £21,659 12s. 6d. has been carried to the contingent fund, which now reaches £49,958. 9s. 3d. These good results have been obtained notwithstanding the reduction of the price of gas at the rate of 3d. per 1,000 feet in the out-townships, and also the abolition of meter rents outside the city. These concessions took effect in September last, and reckoning on the amount of gas consumed they are believed to have lessoned the income during the past half year by about £10,000.

STRANGE FIRE-DAMP EXPLOSION IN FIFE. — In Dunfermline Sheriff Court on Tuesday, Sheriff Gillespie and a jury held an inquiry under the Fatal Accidents Inquiry (Scotland) Act into the circumstances connected with a fire-damp explosion at Benaly Colliery, belonging to the Lochore and Capeldrae Coal Company, in which Joseph Hamilton, miner, Kelty, and Michael Casey, miner, Lochore, were in May last fatally injured, and a third man, named James Morton, badly injured. James Morton, the man who was injured, said that he met with Hamilton and Casey at the bottom of the mine on the morning of the explosion. Hamilton and Casey had been doing roof-repairing work in one of the headings of the five-foot seam during the night. On starting for the faces at the heading Hamilton and Casey set out with him. Fire-damp had sometimes made its appearance in the heading. They had each a safety lamp, and each carried a naked lamp. Michael Casey was the only one of the three who lit his naked lamp. Casey hung the naked lamp on the front of his cap. When getting near the working faces in the heading witness called out to Casey to put out the naked light. Casey said that he had been in the working faces that night already, and did not see any gas. Casey stepped forward and walked right into the working place, with the result that a tremendous explosion occurred. Hamilton was killed on the spot. Casey and witness scrambled about in the dark for some time. Witness had one of his legs fractured, and it was ultimately suggested that Casey should try to find his way to the bottom of the shaft alone. Casey reached the surface, but died the following day from his injuries. Witness was discovered lying by the side of the road by a rescue party, and was assisted to the surface. After the explosion Casey said: "I wish I had taken your advice, Morton." John Duncan, underground manager, deponed that the morning inspections were made with safety lamps, but the miners worked with the aid of naked lamps. All the three safety lamps at the pit were taken down by Morton, Casey, and Hamilton, and the rescue party had to use naked lights. Another witness stated that the presence of gas in the heads had previously been reported in the report book.

Obituary.—It is with regret we have to chronicle the death of Mr Henry Simon, which took place at "Lawnhurst," Didsbury, on Saturday evening, 22nd inst, in his 65th year. In addition to active work on behalf of sanitation and education in Manchester, Mr. Simon was well-known as an engineer in connection with milling machinery and the Simon-Carvés bye-product recovery coke ovens.

THE BRITISH ALUMINIUM COMPANY, LIMITED.—This Company announces the issue at par of £300,000 five per cent. first mortgage debenture stock, secured by a first charge on the freehold and leasehold property, investments, and patents, and a floating charge on the whole of the other assets of the company in England. The company was registered in 1894, and has a share capital of £300,000., fully issued. The present issue of debenture stock is made for the purpose of paying off the existing debentures and other loans amounting to £178,500., and mortgage charges on real property amounting to £37,400., thus consolidating the debenture and mortgage debts of the company, and also for providing further capital in the business to the extent of about £80,000.

DYEWORKS AT TORQUAY.—At Torquay, extensive dyeworks have been erected upon an acre of land on the Old Woods Estate, Newton Road, within a short distance of the town. The principal dyeing department, 81ft. by 16ft., is divided into three departments, each containing special machinery and apparatus far the various processes of dyeing and cleaning. Adjoining is a chemical cleaning house, 35ft. by 20ft., divided from the main building, which is devoted to the purposes of a laundry, by double iron doors, which close automatically in case of fire. The spacious open-air drying and bleaching grounds are in the midst of green fields, and so possess an advantage over artificial methods of drying. A limited liability company has been formed to carry on the works.

PERSONAL.—The first meeting of creditors was held on Tuesday at the London Bankruptcy Court under the failure of *James Bennett*, 96 and 98, Leadenhall-street, metallurgical chemist and agent for the sale of mineral properties. Mr. Hough (Official Receiver) reported that the debtor during the past two years had been to Spain, Portugal, and France on behalf of the owners of mineral properties for the purpose of inspecting them with a view to disposing of them for the owners. His efforts, had, however, not met with success. He also became interested in an antimony mine at Vallango, Portugal, a barium property at Jussy, France, and a silver-lead property at Val-de-Penas, Spain. Two years ago he assisted in the promotion of the Gerona Copper Company, Limited, receiving £5,000. in shares, and he acted as a director of the company until nine months ago. In September, 1896, he took Riverside House, Barnes, for the purpose of testing chemical processes; but his operations there ceased about a year ago, they having resulted in a loss of £3,500. The debtor roughly estimates his liabilities at £28,405. (unsecured £14,151), and has no assets whatever. He attributes his failure to losses in connection with mineral properties and other enterprises. No proposal was submitted, and the case was left in the hands of the Official Receiver, to be wound up in the usual course of bankruptcy.

NOTES ON SOLUBLE DRIERS.—It has been proved by numerous experiments that the only mineral substances possessing drying properties are manganese and lead, and all compounds not containing either lead or manganese are of no value as driers. Of the lead and manganese compounds the most powerful are those which contain the largest percentage of soluble lead and soluble manganese. The oxides and peroxides of lead and manganese have the drawback that the oil, in order to obtain enough drying power, must be heated to a degree which in most cases darkens the oil, and, of course, also the resulting varnish. If 2 to 3 per cent. borate of manganese, with some oil, is made into a paste and this paste is added to the slightly heated oil, it gives paler varnishes because its colour is not so dark, and the oil need not be heated to more than 480° F. This heat should be maintained for from one to three hours, and the oil well stirred during the entire process. The best results are, however, obtained with resinates and linoleates, if these are prepared in the proper way, so as not to contain too much insoluble, but as much as possible soluble oxides, viz :—Of fused linoleate of manganese or of lead-manganese 1 per cent., of fused resinate of manganese or of lead-manganese 2 to 3 per cent., or precipitated resinate of manganese 1 to 1½ per cent. of the weight of the oil will be sufficient, and the driers may either be added direct to the linseed oil, heated to about 300° F., or the necessary quantity of the drier previously dissolved in double its weight of heated oil, and the solution added to the bulk of the oil heated to the same degree. It is as well to maintain this heat for from two to five hours, and to have the oil well stirred and thoroughly acted upon by plenty of air. The International Trading Co., 35, Queen Victoria-street, E.C., make a specialty of driers and pigment minerals, being the British agents for Mr. J. Pannenberg, of Arnstadt, and they will be pleased to [illegible] inquiries.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols keep firm, and 90's are now worth 8½d. to 9d., and 50/90's 10d. Carbolic acids are a firm market, crude being quoted 2s. 2d., and crystals, 7¾d. There has been a sharp advance in naphthas, solvent being scarce at 1s. 1d., while crude is also on the advance. Pitch keeps very steady at 33s., f.o.b. East Coast, and 30s. West.

Sulphate of ammonia is in fairly good demand, and prices remain stationary at about last week's level. Beckton is now offering for August at £12. 1s 3d.; London (outside makes) are quoted £12. 2s 6d.; Hull, £12.; and Leith, £12. 1s. 3d. to £12 2s. 6d. Nitrate of soda, 7s. 9d. cwt.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade there are better reports all round, and a fair bulk of business is being done in all the main products. Bleaching powder is firmer at £5 per ton, hardwoods, f.o.b. Liverpool, but remains at £4. 2s. 6d. to £4. 5s. per ton, softwoods, for home trade, f.o.r. makers' works. Caustic soda is strong at the advanced price, and further advance does not seem improbable. Current quotations are as last reported, viz., f.o.b. Liverpool, 77%, £8; 74%, £7. 15s.; 70%, £7. 7s. 6d.; 60%, £6. 7s. 6d. per ton, 10 ton lots. Ammonia alkali, 58%, somewhat scarce at £4. per ton bags, f.o.r. For soda crystals and bicarbonate prices are well maintained. Chlorates of potash and soda firm at 3½d. and 3¾d. per lb. respectively. Saltcake still a little irregular, with some small spot sales at from 22s. to 23s. per ton on rails; for forward delivery 25s. to 27s. 6d is quoted. Sulphate of copper rather easier for prompt delivery at £24. 15s., and forward £24. 10s., with a downward tendency. Yellow prussiate of potash is firm at 8d. and soda 6¼d. per lb. Potash, caustic and carbonate, continues in good request, and values are unaltered. Sulphocyanides steady, cyanide 98/100% 1s. 0½d. per lb. For white powdered arsenic there is a fair demand at £19. Garston, London, etc. Carbolic acid, crystals and liquid, have a firmer tone. Aniline oil and salt quiet and without change in price. For brown acetate of lime there is only moderate inquiry, and price stands at £4. 15s. to £4 17s 6d., c.i.f.; grey, £7. 15s. per ton. White sugar of lead, foreign, flat at £22. c.i.f. Zinc oxides are firm, zinc dust £24. per ton. Tin crystals are dearer at 9¾d. per lb. Bichromates are unchanged. Nitrate of soda steady at 7s. 9d. per cwt. Glycerine dearer. Ammonia salts all round are firm. There are some indications of a better general demand for chemicals from the manufacturing districts.

REPORT ON MANURE MATERIAL.

The market is without any new feature, and prices generally are practically unchanged.

Mineral phosphates are still inquired for, but in consequence of the firmness of shippers business is rather restricted.

For East Indian bone meal sellers are very firm in their ideas for good quality, but ordinary quality has been done for autumn shipment at about £5. per ton, ex quay. Spot quotations are £5. 5s. to £5. 10s. per ton, ex store, according to quality.

Nitrate of soda is quiet, quotation on spot being 7s. 7½d. per cwt. for good quality.

THE METAL MARKETS

LONDON, WEDNESDAY.—Pig iron strong: Scotch Warrants closed at 74s. 11d., Middlesbrough, 75s. 1½d., cash, and hematite, 79s. 6½d. Copper quiet: Chili bars, G.O B.'s and G.M.B. s, closed at £77. 3s. 9d. to £77. 8s. 9d. cash; and £77. 13s. 9d. to £77. 18s. 9d. three months. Tin firm: Straits closed at £143. 5s to £143. 15s. cash, and £144 5s. 0d. to £144 15s. 0d. three months. Australian, £144. 10s.; English ingots, £147. to £147. 10s. Lead firm: Spanish, £14. 10s.; English, £14 12s. 6d. Silesian spelter, ordinary, £25. 12s. 6d. to £25 15s. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 7s. *Copper Shares* steady: Cape, 4 3/16 to 4 1/16; Copiapo, 3 5/8 to 3¾; Libiola, 1¾ to 2; Mason & Barry, 3¾ to 4; Rio Tinto, 46 7/16 to 46 9/16; Tharsis, 8 to 8¼.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is firm in price and moving fairly well, sales including Cameroon at £21. 5s. Olive is very firm and prices generally

show an advance of about 10s. per tun. Linseed is rather quieter at 21s. 9d. to 22s. 6d. per cwt. for Liverpool makes in export casks. Cottonseed is dearer, the market closing firm at 17s. 3d. to 17s. 6d. cwt. for Liverpool refined. Castor oil is steady, with good seconds Calcutta 2⅜d., and first pressure French, 2¾d. per lb. Tallow is firm in all positions, and sales have been satisfactory. Resin is moving well, and all grades are experiencing a good market at last quotations. Spirits of turpentine are steady at 32s. 6d. spot, but for cargoes now due, 31s. 9d. would probably be accepted. Petroleum steady, with American 6½d. to 7⅛d., and Russian refined, 5⅞d. to 6¼d. per gallon.

CAKES.—American Western linseed on the spot have had a quieter market owing to arrivals, and with consumers operating sparingly, the quotation is reduced slightly, there being now sellers at £6. 8s. 9d. to £6. 13s. 9d., whilst other imported descriptions are firm in tone, with supplies well held for the recent quotations, viz., £6. 12s. 6d. to £6. 15s. for River Plate, and £6 17s. 6d. to £7. per ton for Bombay. Russian is still purely nominal in value owing to the want of stock here. Liverpool makes are not much inquired after, but there is no change in the quotation, home crushers still asking £7 to £8. per ton, according to brand. Good to choice brands of American decorticated cottonseed are nominally 2s. 6d. easier, with very little business passing at the moment, and the quotation is now given at £5. 10s. to £6., according to quality. Liverpool makes, however, continue to meet a moderately fair inquiry, and the value is steadily maintained at £6. 2s. 6d. to £6. 15s. per ton, with a steady tone ruling thereat. Undecorticated Liverpool makes continue to have a very quiet market, with only a limited business passing, and there are now sellers at 2s. 6d. under previous prices, viz., £4. 15s. to £5. 7s. 6d. per ton, according to brand. Egyptian on the spot are also quiet and the turn in buyers' favour, with £4. 7s. 6d. per ton now quoted, and only a small trade passing at the moment.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Linseed and cottonseed have been a quiet market, yet oils have remained firm and an improving value. The principal imports here during the year have been:—Wheat, 1,333,701 qrs. against 1,533,431 qrs. a year ago; flour, 227,496 cwts against 121,858 cwts; linseed, 277,363 qrs. against 211,347 qrs; rapeseed, 68,572 qrs. against 42,285 qrs.; cottonseed, 91,621 tons against 11?,551 tons; oilcake, 12,369 tons against 8,355 tons; olive oil, 2,427 tuns against 4,101 tuns. The exports of oil for the week have been:—Linseed oil, 3 tons Belgium, 2 tons France, 2 tons Germany, 2 tons Holland, 4 tons Italy, 25 tons Norway, total 38 tons; cotton oil, 10 tons Belgium, 2 tons Denmark, 6 tons France, 12 tons Germany, 39 tons Holland, 17 tons Sweden, total 86 tons. Linseed oil has been dearer than at present, but is again quieter at 19s. 10½d. spot, naked; 19s. 9d. month; 19s. 6d. July/August; 18s. September/December; 17s. 10½d. January/April; boiled and refined, £1. to £1. 10s. per ton extra. Refined cotton oil firm, 15s. 9d. spot and month; 14s. 3d. to 14s. 4½d. November/April; casks, £1., and ordinary barrels, £1. 10s. per ton extra. Castor oil, extracted here, cold drawn pharmaceutical, 28s. per cwt. in barrels; in cases, 3 5/16d. per lb.; first pressure, 25s. 6d. per cwt. in barrels; in cases, 3d per lb.; second pressure, 24s. 6d. per cwt.; in cases, 2⅞d. per lb. Cod oil, £16. to £18. per ton. Arachide nut oil, 26s. 6d. per cwt. Olive oil unchanged. Olive oil soap, £16. per ton to arrive Oleines, £18. to £20. per ton. Resins unchanged.

CAKES.—Prices are well maintained; some firms have done good business at the Agricultural Show last week. Linseed cakes firm, 95% pure, £7. 5s. to £7. 7s. 6d. Oilcakes (linseed), £6 5s. to £6 7s 6d.; Russians, £7. to £7. 5.; Americans, *nil*. Cotton cakes steady; best makes, £5 to £5. 2s. 6d.; seconds, £4. 17s. 6d. to £5. 2s 6d; decorticated, *nil*. Rape cakes: Black Sea, £4. to £4. 2s. 6d.

PAINTS.—The business now is probably as good as it will be, but the builders' strike has to some extent affected the demand; prices are unchanged. Disinfectants in fair request; carbolic powder, 20%, £4 5s.; 15%, £3 15s.; 10%, £3.; fluid from 10d. per gallon.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

Production has not quite got into its normal volume after the great holiday stoppage, but the purely business section of the industry is already in full swing, and the feeling on the whole is a healthy one. The heavier makes of chemicals are all seeking upwards, and bleaching powder has added a half-crown for at least some of its destinations. Caustic soda, also, is in stronger inquiry and increased quotation. Sulphate of ammonia towards the close of the week was got in at £12. 2s. 6d. prompt Leith, and it is probably by now still a little easier. Burning oils (mineral), though in the quietest part of the year, so far as consumption is concerned, are strong on the market, and prospective buyers have to pay from a farthing to a halfpenny per gallon higher than the figure ruling over last season. Makers will meet soon to fix the price for the coming season, and a rise is certain. Lubricating oils also are stiffer, and paraffin spirit (naphtha), is dearer and much sought after.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 15s. 0d., 70/72° £7. 7s. 6d., 60/62° £6. 7s. 6d., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 15s. 0d. nett, Tyne; saltcake, 25s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3⅝d., less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 1s. 3d. to £12. 2s. 6d. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25. 5s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb.; paraffin spirit (naphtha), 9½d. to 10d. per gal; paraffin oil (burning), No. 1, 6½d.; and crystal, 7d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £5. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were 30,211 bags cane unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

There is no change to report in chemicals to-day, though the tendency for higher prices for caustic soda is maintained. For local consumption soda crystals are £2. 12s. 6d. per ton, gross weight. Sulphur, £4. 12. 6d. per ton. Caustic, 70%, £7. 10s., and 76/77%, £8 10s. per ton, f.o.b. Tyne.

Bleaching powder, softs, £5. 5s. per ton, nett; do., hards, £5. 10s. per ton, nett; caustic soda: 76/77% £8. 10s., and 70% £7. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 12s. 6d. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. 0d. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. 0d. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—This trade continues firm and best Northumbrian steam are now 12s. 7½d. per ton, f.o.b. Steam smalls are rather scarce, and command 6s. per ton. There is a good demand for bunker coals and prices are very steady. Gas coals are also firm. Coke prices are well maintained. For export, best Durham coke is quoted 25s. per ton, f.o.b., and for home use, 22s. at the furnaces.

New Companies.

Alfred Nichols, Ltd.—CAPITAL £15,000. in £10. shares (500 pref.). This Company has been formed to enter into an agreement with A. Nichols for the acquisition of the business carried on by him at Bridgwater, and to carry on the business of general produce merchants, forage contractors, artificial manure manufacturers, etc. The subscribers to the memorandum of association are:—A. Nichols, Monmouth-street, Bridgwater, merchant; W. E. Cooper, 28, Salmon Parade, Bridgwater, accountant; E. Nichols, 18, Waterloo Terrace, Bridgwater, accountant; H. Denman, Haygrove, Bridgwater, yeoman; A Basker, Ashbourne, Weston-super-Mare, chemist; J. H. Cann, Gothelney, Bridgwater, gentleman; H. C. Teck, Bridgwater, solicitor.

Runcorn Bone Works, Ltd.—CAPITAL £14,000. in £10. shares. This company has been formed to acquire and carry on the business of manufacturers of bone charcoal, ivory black, bone tallow, bone tar, bone size, sulphate of ammonia, guano, etc., carried on at Sutton, Cheshire, as The Runcorn Bone Works Co., and to adopt an agreement with E. C. Leventon. The subscribers to the memorandum of association are:—E. C. Leventon, Oakfield, Roby, near Liverpool, merchant; H. Leventon, Red Lyn, Gateacre, near Liverpool, merchant; F. Leventon, Oakfield, Roby, near Liverpool, merchant; T.

Baxter, Dutton Seall, Warrington, farmer; W. Lowe, Sutton Hall, Sutton Weaver, farmer; H. P. Nicholas, Frodsham Bridge, Warrington, bookkeeper; T. Nicholas, South Bank, Frodsham, manager. Registered office, Sutton, near Frodsham, Cheshire.

Isaac Holden & Sons, Ltd.—Capital £435,000, in £1 shares (217,000 pref.) This company has been formed to acquire the business of Isaac Holden & Sons, Ltd., to adopt an agreement with the said company and its liquidators, and to carry on the business of machine wool combers, grease extractors, soap manufacturers, etc. The subscribers to the memorandum of association are:—A. Holden, Nun Appleton, Bolton Percy, York, Bart., M.P.; E. Holden, Lynwood Park Avenue, Southport, machine comber; T. Craig, Alston Lodge, Bradford, machine wool comber; E. I. Holden, Appleton House, Bolton Percy, machine wool comber; I. H. Holden, Lynwood Park Avenue, Southport, machine wool comber; J. R. Rape, Alston House, Bradford, machine wool comber; W. Sugden, Coldspring House, Cullingworth, soap manufacturer. Registered office, Alston Works, Thornton-road, Bradford.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending July 15th.

Acetic Acid—

Sweden,	£18	H. G. Brown
Holland,	80 pks.	Little & Johnston
,,	100	A. & M. Zimmermann
,,	50	R. W. Greeff & Co.
,,	15	F. Boehm

Acetone—

Germany,	10dms.	J. Norrenberg & Co.

Alkali—

France,	50 c.	J. Barber & Co
Germany,	10	,,

Ammonium Phosphate—

Holland,	32 cks.	London Non-Flammable Wood Co., Ld.
,,	£40	Chemical Works

Antimony Ore—

Germany,	8 t.	J. Barber & Co.

Barium Chloride—

Germany,	22 cks.	Petri Brs.

Barytes—

Holland,	23 pks.	Brandram Brs. & Co.
,,	259	W. Harrison & Co.
Germany,	97	,,
,,	48	J. L. Lyon & Co.
Belgium,	83	,,

Boracic Acid—

Germany,	5 pks.	Craven & Co

Bromine—

Germany,	207 cs.	A. & M. Zimmermann

Caoutchouc—

Straits,	8 t.	4 c.	W. Pope & Co.
,,	23	3	L. & I. D. Jt. Co.
,,	40	6	E. Boustead & Co.
,,	2	18	Butler's Wf., Ld.
Madagascar,		11	Wainwright Brs.
,,		3	Lewis & Peat
Rangoon,	11	8	Prop. Hay's Wf.
France,	2	15	H. Johnson & Sons
,,		10	Proctor Brs.
Borneo,	1	10	Elkan & Co.
Germany,		5	A. C. Lloyd
,,		5	Prop. Bull Wf.
,,	5	4	Union L. Co., Ld.
Holland,	6		Phillips & Graves
U. States,		8	G. T. Benton & Son
,,	1		L. & I. D. Jt. Co.
Belgium,	3	6	T. Ronaldson & Co.
,,	3	6	E. Bowers & Co.
Zanzibar,		4	L. & I. D. Jt. Co.
Colombia,	8	10	Prop. Bull Wf.

Castor Oil—

Italy,	60 cs.	Lucas & Spencer's Wf., Ld.
,,	5	Corbyn, Stacey, & Co.
E. Indies,	23 cks.	J. Owen
,,	275	Cayzer, Irvine & Co.
France,	33 brls.	Mordaunt Brs.
,,	80 pks.	F. Boehm
,,	10 cks.	C. Tennant, Sons, & Co.

Caustic Potash—

Canada,	12 brls.	M. D. Co,
,,	10	G. H. Penney & Co.
Germany,	83 dms.	J. M. Steel & Co.

Chemicals *(otherwise undescribed)*

France,	£15	Girard Brs. & Co.
,,	5	H. Johnson & Sons
Belgium,	10	John Cockerill Line
Germany,	27	Argo S. S. Co.
,,	9	R. W. Greeff & Co.
,,	17	T. Palmer
,,	240	L. & I. D. Jt. Co.
,,	30	Butler's Wf., Ld.
,,	88	H. Lambert
Holland,	6	J. Owen
,,	5	A. Hartrodt
,,	220	H. Harkness
,,	30	Phillipps & Graves
,,	13	Hernu, Peron, & Co.
,,	40	T. H. Lee
Sweden,	8	M. D. Co.
U. States,	520	S. C. Jones

Chloride of Iron—

Holland,	20 cks.	J. Barber & Co.

Citrate of Lime—

Italy,	12 cks.	B. Jacob & Sons
,,	21	W. C. Bacon & Co.
,,	44	Thames S. T. & L. Co., Ld.

Citric Acid—

Italy,	6 pks.	F. C. Devon & Co
,,	40	C. Christophersen & Co.
Germany,	6	A. & M. Zimmermann

Coal Products—

Carbolic Acid

Germany.	67 pks.	J. Owen
,,	25	J. G. Back

Cream of Tartar—

Holland,	24 pks	Kirkpatrick, Barr, & Co.
France,	15	W. C. Bacon & Co
,,	4	C. Atkins & Nisbet
,,	5	M. Ashby, Ld.
,,	20	G. Houghton
,,	3	Blackmore, Leconte, & Co.
Italy,	5	B. & F. Wf. Co., Ld.
,,	2	G. Gregory
,,	25	W. C. Bacon & Co.
,,	22	Howards & Sons
Spain,	3	B. & F. Wf. Co., Ld.
,,	3	City Coml. Wf., Ld.
U. States,	11	B. & F. Wf. Co., Ld.

Disinfectants—

Germany.	£37	Argo S. S. Co.
,,	35	J. Norrenburg & Co.

Dyestuffs—

Aniline

Holland,	7 pks.	G. S. N. Co.

Argols

Italy,	87 pks.	Thames S. T. & L. Co., Ld.

Cutch

Straits,	1,095 pks.	Hoare, Wilson, & Co.

Extracts

Germany,	5 pks.	T. H. Lee
France,	203	Netherlands S. B. Co.
Belgium,	15	Leach & Co
U. States,	50	W. Burton & Sons

Gambier

Straits,	2,840 pks.	Prop. Hay's Wf.
,,	744	Brinkmann & Co.
,,	1,765	Adamson, Gilfillan & Co.
,,	548	Leach & Co
,,	666	Brown & Elmslie
,,	250	Beresford & Co.
,,	1,212	E. Boustead & Co.
,,	259	J. Greig
,,	90	A. E. Piggott
,,	57	Col. & Trading Co.
,,	90	Fellows, Morton & Co.
,,	88	A. B. Curtis & Co.
,,	1,141	Union L. Co., Ld.
Japan	510	,,

Indigo

Germany,	2 chts.	L. & I. D. Jt. Co.
E. Indies,	3	Arbuthnot, Latham & Co.

Myrabolams

E. Indies,	670 pks.	Hoare, Wilson & Co.
,,	1,365	F. Claydon & Co.
,,	2,730	H. J. Perlbach & Co.
,,	1,240	Baxter & Hoare

Orchella

Germany,	170 pks.	Prop. Bull Wf.

Saffron

Spain,	2 pks.	J. Barber & Co.

Shumac

Italy,	50 pks.	Wallace, Ware, & Co.
,,	130	J. Graves
,,	1,600	Bevington & Sons
,,	200	Union L. Co., Ld.
,,	1,250	J. Kitchen, Ld.

Tanners' Bark

Natal,	14 t.	Bullard, King & Co.

Farina—

Germany,	100 pks.	T. M. Duche & Sons
,,	100	Thames S. T. & L. Co., Ld.
Austria,	14	M. D. Co.

Gamboge—

Straits,	40 pks.	L. & I. D. Jt. Co.

Glucose—

France,	200 pks.	200 cwt.	Trier, Meyer & Co.
,,	250	250	C. Barnard
,,	300	300	Perkins & Homer
,,	35 cks.	283	Deering & Robotton
U. States,	500 pks.	500	L. & I. D. Jt. Co.
,,	719 bgs.	719	R. G. Hall & Co.
,,	249	249	Fellows, Morton & Co.
,,	250	250	C. Mangold & Co.
Germany,	25 pks.	204	Beresford & Co.

Glue—

Belgium,	£360	T. M. Duche & Sons
,,	470	J. Harrison
,,	46	Leach & Co.
,,	465	G. E. Banes
Germany,	15	L. & I. D. Jt. Co.
,,	150	M. H. Voss
,,	50	H. Lambert
,,	600	Deering & Robottom
U. States,	15	M. D. Co
,,	25	Ldn. Prcls. Del. Co.
,,	50	Anglo-Amer. Oil Co.
Belgium,	470	J. Harrison
,,	360	T. M. Duche & Sons
,,	46	Leach & Co.
,,	465	G. E. Banes
Holland,	64	G. S. N. Co.
France,	125	Mory & Co.
,,	65	Burnett Brs. & Sons

Glycerine—

France,	£310	H. Hill & Sons
Holland,	570	J. Barber & Co.

Guano—

Peru,	1,330 t.	A. Hunter & Co.

Gutta Percha—

Straits,	19 t.	12 c.	Huttenbach & Co.
,,	3	9	L. & I. D. Jt. Co.
,,	4	14	Gilman Brs & Co.
,,	1		R. Chambers & Co.
,,	1		Borneo Co., Ld.
,,	9	13	Prop. Bull Wf.
,,	13		W. Pope & Co
,,	23	10	H. W. Jewsbury & Co.
,,	5		Anderson, Weber & Smith
Holland,	7	2	,,
France,	10		Davies, Tamer, & Co.

Iron Oxide—

Germany,	4 pks.	H. Lambert

Lead Acetate—

Germany,	£119	Drolenvaux & Bremner

Litharge—

Germany,	5 pks.	Butler's Wf., Ld.

Manganese Ore—

Germany,	10 t.	L. & I. D. Jt. Co.
,,	11	Butler's Wf., Ld.
E. Indies,	29	Union Ltge. Co., Ld.

Manure—

E. Indies,	200 t.	Dundee, Perth, & London S. Co.
,,	200	T. T. Creed
,,	404	A. Hunter & Co.
,,	200	Walker, Howard & Co.

Methyl Alcohol—

Belgium,	9 dms.	Lister & Biggs
France,	12	,,
U. States,	32	H. Wallace & Co.

Molasses—

U. States,	500 pns. 3,100 c.	L. & I. D. Jt. Co.

Ochre—

France,	50 pks.	Z. Cartwright, Ld.
,,	233	W. Harrison & Co.
Holland,	10	Phillipps & Graves
U. States,	172	Binney & Smith

Oxalic Acid—

Holland,	10 pks.	R. W. Greeff & Co.

Paraffin Wax—

U. States,	100 cs.	Anglo-American Oil Co.
,,	100 brls.	L. & I. D. Jt. Co.
,,	200	H. Hill & Sons

Phosphates—

Belgium,	460 t.	West & Penrose

Potash—

Belgium,	25 cks.	T. H. Lee

Potassium Bromide—

Germany,	7 cs.	R. W. Greeff & Co.

Potassium Carbonate—

France,	2 t.	14 c.	A. Zumbeck & Co.
,,	4		Petri Brs.
Germany,	6		,,
,,	8		Charles & Fox
Canada,	6	4	,,
U. States,	6	2	S. Ward & Co.

Potassium Oxalate—

Holland,	24 cks.	R. W. Greeff & Co.

Pyrogallic Acid—

Holland,	10 pks.	Netherlands S. B. Co.

Red Lead—

Holland,	32 pks	Randall Brs.
Germany,	3	Haeffner, Hilpert, & Co.
,,	33	Perkins & Homer
,,	33	J. Matton
,,	26	H. Lambert

Rosin—

Austria,	2 brls.	Bailey & Leetham, Ld.
U. States,	1,000	H. Hill & Sons

Saltpetre—

E. Indies,	961 bgs.	Lucas & Spencer's Wf.
Germany,	2 cks.	R. W. Greeff & Co.

Soda—

Holland,	8 c.	G. S. N. Co.

Soda Crystals—

Belgium,	10 t.	Leach & Co.

Sodium Hyposulphite—

Germany,	22 cks.	Petri Brs.
,,	250 cs.	H. Lambert

Sodium Prussiate—

Belgium,	35 cks.	J. Owen

Starch—

Holland,	113 pks	G. S. N. Co.
,,	200	Hernu, Peron, & Co.
,,	2,152	Little & Johnston
,,	60	J. Barber & Co.
France,	200	,,
,,	1,409	W. E. Cole
Belgium,	240	T. Ronaldson & Co.
,,	144	Pearce, Duff, & Co.
,,	514	T. H. Lee
,,	38	Leach & Co.
,,	436	Becker & Wagner

Germany, 351 Horne & Co.
,, 163 Argo S. S. Co.
,, 6 Butler's Wf., Ld.
U. States, 501 C. Tennant, Sons, & Co.

Stearine—
France, 303 bgs. H. Hill & Sons
Belgium, 442 ,,
,, 3 cks. T. H. Lee

Sulphur—
Italy, 18 t. F. C. Devon & Co.
,, 10 W. Harrison & Co.
,, 5 Sheppy Glue & Chem. Wks, Ld.
,, 48 Union Ltge. Co., Ld.
,, 13 F. Smith
,, 5 W Slimmon
,, 30 H. Holt & Co.

Sulphuric Acid—
Holland, 1 pk. Spencer, Chapman & Co.
Germany, 37 H. Lambert

Tallow—
Melbourne, 228 cks. L. & I. D. Jt. Co.
Sydney, 154 ,,
,, 100 Aust. Meat Co.
N. Zealand, 188 A. B. Curtis & Co.
,, 915 Col., Con, & Dist. Co.
,, 155 Dalgety & Co., Ld.
,, 500 Goad, Rigg, & Co.
,, 357 J. W. Cook & Co., Ld.
,, 38 H. Hill & Sons
,, 78 J. Groves
,, 42 Phillipps & Graves
,, 33 Hoare, Wilson, & Co.
,, 155 N. Z. L. & M. A. Co.
,, 3 N. M. & A. Co.
,, 12 Cuthbert & Hall
U. States, 210 ,,
Holland, 10 Beresford & Co.
France, 131 bgs. H. Hill & Sons

Tallow and Stearine—
U. States, 10 brls. Lunham & Moore
20 kgs.

Tannic Acid—
Germany, 2 pks R. W. Greeff & Co.

Tartar—
Italy, 48 pks. B. Jacob & Sons

Tartaric Acid—
Holland, 9 pks. Kirkpatrick, Barr, & Co.
France, 8 F. C. Devon & Co.
Germany, 8 D. T. Domeier & Co.
,, 2 Baiss Brs. & Co.

Ultramarine—
Germany, 4 pks. Argo S. S. Co.
,, 24 Steinhoff, Sons, & Co.
Holland, 8 W. Harrison & Co.
,, 5 T. Palmer
,, 6 Hernu, Peron, & Co.
,, Phillipps & Graves
,, 3 G. S. N. Co.

Varnish—
Germany, 3 pks. L. & I. D. Jt. Co.
Belgium, 1 T. H. Lee

Waste Salt—
Germany, 10 t. Luke & Bailey
,, 15 Fuerst Brs.

White Lead—
Belgium, 87 pks T. & W. Farmiloe, Ld.
,, 46 J. L. Lyon & Co.
Germany, 9 J. Knill & Co.
,, 28 Wilkinson, Heywood & Co.
,, 11 H. Lambert
,, 24 Burrell & Co.
,, 65 Randall Brs.
,, 32 R. W. Greeff & Co.
Holland, 5 Spies Brs. & Co.
,, 49 W. Balchin, Ld.
,, 61 Randall Brs.
,, 20 J. R. Francis & Co.
,, 43 Perkins & Homer
,, 29 Burrell & Co.

Wood Pulp—
Norway, 500 pks. W. E. Bott & Co.
Sweden, 250 Tough & Henderson
,, 120 Christophersen & Co.
,, 160 W. G. Taylor & Co., Ld.
,, 600 H. Raby & Mather
,, 210 London Paper Mills Co.
Germany, 385 Becker & Wagner
Portugal, 600 Caima Fibre Wood Pulp Co.
Canada, 220 Reed & Smith
,, 3,669 Furness, Withy, & Co.
Denmark, 600 H. B. Wood
Holland, 31 Becker & Wagner
U. States, 2,760 Henderson, Craig, & Co.

Zinc Oxide—
Germany, 100 pks. M. Ashby, Ld.
,, 95 Soundy & Sons
,, 25 R. W. Greeff & Co.
Holland, 220 Spies Brs. & Co.
,, 50 J. Matten
Belgium, 30 Kerestedji & Co.
France, 75 ,,
U. States, 250 M. Ashby, Ld.

LIVERPOOL.

Week ending July 13th.

Acetic Acid—
Antwerp, 17 ballns.

Alcohol—
Bordeaux, 1 cs.

Antimony—
Valparaiso, 250 sks. Kleinwort, Sons, & Co.

Barytes—
Antwerp, { 33 cks. 50 bgs.
Rotterdam, 70 cks.

Bones—
Acre, 247 bgs. R. A. Beaver & Co.
Jaffa, 540
Latakia, 208
Mersyne, 56 Syrian Trading Co.
Pernambuco, { 52 35 bxs.

Boracic Acid—
Genoa, 51 cks.

Borate of Lime—
Valparaiso, 2,633 sks.

Caoutchouc—
Valparaiso, 57 bls. J W. Schroeder & Co.

Castor Oil—
Leghorn, 10 cs.

Chemicals *(otherwise undescribed)*
Fiume, 8 cks.
Gijon, 722 bgs. W. Pope
Hamburg, 2 cs.

Citric Acid—
Bordeaux, 4 cks.
Messina, 15

Coal Products—
Aniline Colours
Antwerp, 1 bx.
Tar Oil
Antwerp, 25 cks.

Colours—
Stettin, 13 cks. G. G. Mackay
,, 6 Evans, Sons, & Co.

Cottonseed Oil—
Boston, 155 brls.

Cream of Tartar—
Barcelona, 8 cks.
Bordeaux, 62
Genoa, 15 cs.
Oporto, 5 cks. Sachse & Klemm
Tarragona, 6

Dyestuffs—
Argols
Bordeaux, 5 cks.
Extracts
Fiume, 400 brls. Oak Extract Co., Ld.
,, { 250 472 pks.
Havre, 10 cks. Cunard S. S. Co.
St. Nazaire, 160
Fustic
Cartagena, 1,023 pcs.
Myrabolams
Bombay, 616 bgs. W. & R. Graham & Co.
,, 1,667
Saffron
Valencia, 1 bx.
Shumac
Genoa, 1,300 bgs
Palermo, 1,500
Valonia
Patras, 375 bgs. Paypayanni & Jeremias

Dyewood—
Norfolk, 2,702 pcs.

Farina—
Fiume, 849 bgs.
Stettin, 20 W. Slater

Glucose—
Montreal, 700 brls.
New York, 100

Glue—
Havre, 4 pks. Cunard S.S Co.
St. Nazaire, 4 cks.

Lead Acetate—
Hamburg, 1 ck.

Linseed Oil—
Karachi, 10 cks

Ochre—
Marseilles, 72 brls. S. & W. Hardie & Co.
Norfolk, 25 Fox, Roy & Co.

Paint—
Boston, 14 cs. Bahr Behrend, & Co.
Trieste, 2 pks.

Phosphates—
Ghent, 100 t.
Norfolk, 2,039

Phosphorus—
Montreal, 245 cs.

Potash—
Hamburg, 30 cks.
Montreal, 5 brls. G. W. Royce & Co.

Potassium Prussiate—
Marseilles, 20 brls.

Pulp (Wica)—
New York, 8 brls.

Pyrites—
Huelva, 5,282 t. Matheson & Co.

Red Lead—
Rotterdam, 32 cks.

Rosin—
New York, 1,150 brls.
Rotterdam, 25

Salicylic Acid—
Hamburg, 1 ck. 10 cs.

Salt—
Hamburg, { 3 cks. 5 cs.
Rotterdam, 5 bgs.

Saltpetre—
Calcutta, 731 bgs.
Hamburg, 108 brls.

Soap—
Bordeaux, 175 cs.
Boston, 10 W. Foggitt
Constantinople, 4
Jaffa, 24
Marseilles, 34 cl. Evans, Sons, & Co.
,, { 130 bxs. 21 cs.
Zante, 100

Soap Lye—
Marseilles, 120 dms.

Soap Stock—
New York, 280 brls.

Soapstone—
Bordeaux, 100 bgs. Geo. G. Blackwell, Sons & Co., Ld.

Soda—
Fiume, 10 cks.

Starch—
Antwerp, 334 cs. J. T. Fletcher & Co.
,, 235
Rotterdam, 65

Stearine—
Bilbao, 6 brls. Strumpel & M. S. Brown
Boston, 89 tcs.
New York, 10 hhds.

Sulphur—
Catania, { 400 bgs. 20 brls.
Messina, 150 t.

Tallow—
B. Ayres, 1,507 cks.
Boston, { 850 tcs. 100 brls.
Campana, 342 cks.
Montreal, 150 tcs. T. M. Marc & Co.
,, 130
,, 125 cks. Hughes, Cook, & Co.
New York, 23 tcs. Colby & Co.
,, 250 hhds.
Norfolk, 300 tcs.

Tan Extract—
Marseilles, 125 cks.
New York, 54 bls.

Tartaric Acid—
Bordeaux, 4 cks.
Marseilles, 6

Ultramarine—
Rotterdam 16 cks.

Varnish—
New York, 20 brls.

White Lead—
Antwerp, 19 cks.
Trieste, 20 brls.

Wood Pulp—
Gothenburg, 21 bls. Cowan & Co.
,, 30L. & N. W. Rly. Co.
Hamburg, 23 bls.
Rotterdam, 25 pks.

Zinc Ashes—
Genoa, 43 bgs.

Zinc White—
Hamburg, 40 cks.

MANCHESTER.

Week ending July 15th.

Antimony Salt—
Rotterdam, 14 cks.

Barytes—
Rotterdam, { 50 bgs. 28 cks.

Bones—
Mersyne, 56 bgs.

Caustic Soda—
Hamburg, 20 dms.

Chemicals *(otherwise unclassified)*
Rouen, 127 cks.

Coal Products—
Alizarine
Rotterdam, 161 cks. 5 cs.
Aniline Salt
Antwerp, 19 brls.
Rotterdam, 20 cks.
Pitch
Hamburg, 56 cks.

Colours—
Hamburg, 4 cks. 10 cs.
Rotterdam, { 19 32 25 brls. 6 bxs.

Dyestuffs—
Extract
Rotterdam, 10 cks.
Rouen, 5 10 cs.
Tannin
Hamburg, 10 cks.

Farina—
Hamburg, 312 bgs.
Stettin, 320 Browne, Geveke, & Co.
,, 550
,, 500 N. W. Jackson

Glucose—
Montreal, 1,176 brls.
New York, 616
Rotterdam, 4 cks
Stettin, { 1,200 bgs. 505 cks.

Glue—
Antwerp, 21 bls.
Hamburg, 132 bgs.
Rotterdam, 5
Rouen, 108 cks.

Lead Acetate—
Stettin, 21 cks.

Litharge—
Rotterdam, 7 cks.

Lithopone—
Hamburg, 67 cks.

Mineral White—
Bordeaux, 300 bgs. G. G. Blackwell, Sons, & Co.

Nitrite—
Rotterdam, 9 cks.

Ochre—
Rouen, 13 cks.

Ochres—
Rotterdam, 9 cks.

Potash—
Hamburg, 41 cks.
Rotterdam, 30

Potassium Carbonate—
Hamburg, 10 cks.

Potassium Prussiate—
Rouen, 5 cks.

Rosin—
New York, 600 brls.

Soap—
Hamburg, 3 cs.

Sodium Silicate—
Rotterdam, 4 cks.

Starch—
Antwerp, 1,020 cs.
Hamburg, 234
Montreal, 400 sks.
Rotterdam, 125
New York, 1,750 bgs.

Stearine —
Antwerp, 63 bgs.
Tanners' Extract—
New York, 50 bxs.
Tannin Extract—
Rouen, 30 cks.
Tartaric Acid—
Germany. 8 cks.
Rotterdam. { 10 kgs. / 2 cks.
Ultramarine—
Hamburg, 1 ck.
Rotterdam, 4 cs.
Waste Salt—
Hamburg, qty.
Wood Pulp—
Christiania, 2,210 bls.
Drammen 580
Gefle, 1,100
Gothenburg, 289 919 pks.
Hamburg, 452
Kallero, 2,210
Quebec, 50 fthms. 565
Rotterdam, 15 bls.
Skien, 1,000
Stettin, 11 bdls.
Zinc Oxide—
Antwerp, 10 cks. 10 crts.
Hamburg, 5
New York, 100 brls.
Zinc White—
Antwerp, 20 cks.
Rotterdam, 10

HULL.

Week ending July 15th.

Acids—
Ghent, 20 crbys. Wilson, Sons, & Co., Ld.
Rotterdam, 12 cks. Hull & Netherlands S. S. Co
Alumina—
Ghent, 50 bgs. Wilson Sons, & Co., Ld.
Aluminium—
New York, 16 cs. Wilson, Sons, & Co., Ld
Antimony—
Dunkirk, 2 cks. Wilson, Sons, & Co., Ld
Barytes—
Antwerp, 34 cks. Bailey & Leetham, Ld
,, 100 bgs. H. F. Pudsey
,, 36 cks. ,,
,, 93 Wilson, Sons, & Co., Ld.
Bremen, 38 Veltmann & Co.
Hamburg, 55 bgs.
Chemicals *(otherwise undescribed)*
Hamburg, 31 pks. Wilson, Sons, & Co., Ld.
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.
Coal Products —
Alizarine
Rotterdam, 168 pks. Hull & Netherlands S. S. Co.
47 brls
Aniline
Rotterdam, { 161 pks. / 7 cks. / 5 cs. } Hull & Netherlands S. S Co
Aniline Salt
Amsterdam, 6 cks Wilson, Sons, & Co., Ld.
Creosote Salt
Rotterdam, 7 cks. Hull & Netherlands S. S. Co
Pitch
Hamburg, 25 cks. Wilson, Sons, & Co., Ld
Colours —
Amsterdam, 4 cks. Wilson, Sons, & Co., Ld.
Antwerp, { 10 pks. / 4 cks. } ,,
,, 8 brls. J. Good & Sons
Dunkirk, 5 cs. Wilson, Sons, & Co , Ld
Ghent, 6 cks. ,,
Hamburg, 6 ,,
Rotterdam, { 3 19 cs. / 39 brls. / 78 pks. } Hull & Netherlands S. S. Co.
Stettin, 28 cks. Wilson, Sons. & Co., Ld.
Copper Arseniate—
Hamburg, 1 ck. Wilson, Sons, & Co., Ld.
Dyestuffs—
Extract
Hamburg, 1 cs.
Indigo
Rotterdam, 5 brls. Hull & Netherlands S. S. Co.
Farina—
Antwerp, 50 bgs. Wilson, Sons, & Co., Ld.
Stettin, 50 ,,
,, 100
Glucose —
Boston 47 brls.
New York, 20 Wilson, Sons, & Co., Ld.
,, 249
Rotterdam, 40 bgs. Hull & Netherlands S. S. Co.
Stettin, 10 cks. Wilson Sons, & Co., Ld.
Glue—
Christiania, 103 bgs. Wilson Sons, & Co., Ld.
Hamburg, 15 ,,
Rotterdam, 1 Hull & Netherlands S. S. Co
2 cks.
Rouen, 31 Wilson, 24 pks. Sons, & Co., Ld.
Stockholm, 20 bgs. ,,
Glue Stock —
Hamburg, 9 bls. Wilson, Sons, & Co., Ld.
Lead Acetate—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.
Linseed Oil—
Amsterdam, 129 brls. Hull & Netherlands S. S. Co
Rotterdam, 55 ,,
Lithopone—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co
Manganese—
Hamburg, 1 ck. Wilson, Sons. & Co., Ld.
Rotterdam, 9 Hull & Netherlands S. S. Co.
Ochre—
Bremen, 6 cks. Veltmann & Co
Rouen, 31 Wilson, Sons, & Co., Ld.
Paint—
Boston, 1 bx.
Copenhagen, 2 brls. Wilson Sons, & Co., Ld.
Paraffin Wax—
New York, 361 brls. Wilson, Sons, & Co., Ld.
,, 861
Phosphates—
Dunkirk, 150 t.
Potash—
Antwerp, 10 bgs. Wilson, 63 rms. Sons, & Co., Ld.
,, 1 ck.
Dunkirk, 30 ,,
Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Soap—
Boston, 5 brls.
Hamburg, 6 cs. Bailey & Leetham, Ld.
New York, 300 bxs.
Sodium Acetate—
Rouen, 5 cks. Wilson, Sons, & Co., Ld.
Sodium Nitrate—
Hamburg, 739 bgs. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 100 bgs. Hull & Netherlands S. S. Co.
181 cs.
Antwerp, 70 Bailey & Leetham. Ld.
,, 150 bgs. Wilson, Sons, & Co., Ld.
Bremen, 780 pks. Veltmann & Co.
Rotterdam, 674 cs.
40 bgs. Hull & Netherlands S. S. Co
Stearine—
Amsterdam, 30 bgs. Wilson, Sons, & Co., Ld
Tallow—
Boston, 50 hds. Wilson, Sons, & Co., Ld.
,, 100 trcs.
Dunkirk, 199 cks. ,,
New York, { 89 pks. / 70 brls. / 66 cks. } ,,
Tartar—
Amsterdam, 9 cks. Hull & Netherlands S. S. Co.
Tartaric Acid—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.
Turpentine—
Liban, 53 brls.
Ultramarine—
Amsterdam, 4 cks. Hull & Netherlands S. S. Co.
Rotterdam, { 1 3 cs. / 5 pks. } ,,
Waste Salt—
Hamburg, 389 bgs.
White Lead
Amsterdam, 34 cks. Hull & Netherlands S. S. Co
Wood Pulp —
Abo, 20 bls. J. Good & Sons
Christiania, 2,252 pks. Wilson Sons, & Co., Ld
Drontheim, 700 bls. ,,
Gothenburg, 622 bdls. ,,
,, 108
Hamburg, 320 pks. ,,
Zinc Oxide —
Antwerp, 5 brls. Bailey & Leetham. Ld.
,, 125 Wilson,
15 cks. Sons, & Co., Ld.
Hamburg, 25 ,,
Zinc Sulphate—
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.
Zinc White—
Amsterdam, 25 cks Hull & Netherlands S. S. Co.

GLASGOW.

Week ending July 20th.

Barium Sulphate—
Antwerp, 280 bgs.
Barytes—
Hamburg, 50 bgs.
Rotterdam, 28 J. Rankine & Son
Castor Oil—
Antwerp, 28 cks.
Marseilles, 60 brls.
Chemicals *(otherwise undescribed)*
Hamburg, 3 cks
Chrome Ore—
Macri, 2,400 t Stevenson, Carlile, & Co.
Coal Products—
Alizarine
Rotterdam, 77 cks. J. Rankine & Son
Aniline
Rotterdam, 20 cks. J. Rankine
6 cs. & Son
Beta Naphthol
Rotterdam, 3 cks.
Colours—
Hamburg, { 1 ck. / 2 cs. / 17 pks. }
Rotterdam, 74 cks. J. Rankine
2 cs 63 pks. & Son
Dyestuffs—
Aniline Colours
Amsterdam, 4 cks.
Cutch
Rangoon, 256 bxs. P. Henderson & Co.
Extracts
Boston, 4 brls.
Marseilles, 25 cks.
Tannin
Hamburg, 2 cks.
Valonia
Smyrna, 500 t. Martin & Millar
,, 147 W. Bunten & Co.
Farina—
Delfszyhl, 20 bgs.
Glucose—
Baltimore, 100 brls.
Glue—
Hamburg, 10 bgs.
Rotterdam, 20 J Rankine & Son
Rouen, { 16 cs. / 39 bls. / 45 cks. }
Ochre—
Marseilles, 85 brls.
Painters' Colours—
Antwerp, { 43 cks. / 5 cs. / 2 crts. / 9 cks. }
Paraffin Wax —
Rangoon, 79 bxs P. Henderson & Co.
Potassium Cyanide—
New York, 2 bxs.
Pyrites —
Huelva, 2,312 t Tharsis Sulphur & Copper Co.
Rosin—
New York, 750 brls.
Savannah, 1,615
Soap—
Baltimore, 66 brls.
New York, 2 cs.
Rouen, 2
Soap Lyes—
Marseilles, { 90 cks / 10 dms. }
Starch—
Antwerp, 126 cs.
Baltimore, 4 bgs.
New York, 250 sks.
Stearine—
Drontheim, 93 cks.
Tartar—
Bordeaux, 16 cks
Tartar Emetic —
Hamburg, 12 cs.
Turpentine—
Savannah, 1,400 brls.
Ultramarine—
Antwerp, 25 cs
Rotterdam, 5 J. Rankine & Son
Varnish—
New York, 10 brls
Waste Salt—
Hamburg, 1,800 bgs.
Wood Pulp—
Christiania, 63 bls. 134 cs.
Christiansand, 3,155 W. Grant & Co.
Drammen, 1,530
Drontheim, 150
Holmestrand, 1,850
Montreal, 720
Rotterdam, 25
Zinc Sulphide
Rotterdam, 5 cks.
Zinc White—
Hamburg, 40 cks.

TYNE.

Week ending July 15th.

Asbestos—
Hamburg, 23 bgs. Tyne S. S. Co.
Barytes —
Antwerp, 350 bgs. Tyne S. S. Co.
Rotterdam, { 67 cks. / 150 bgs. } ,,
Castor Oil—
Antwerp, 56 brls. Tyne S. S. Co
Colours—
Hamburg, { 1 crte. / 1 ck. / 4 cs. } Tyne S. S. Co.
Rotterdam, 1 ck. ,,
Glucose—
New York, 247 brls. C. Hazel & Son
Glue—
Antwerp, 20 bls. Tyne S. S. Co.
Limespar—
Hamburg, 500 bgs. Tyne S. S. Co.
Limestone—
Antwerp, 2 cs. Tyne S. S. Co.
Magnesia—
Rotterdam, 1 cs. Tyne S. S. Co.
Silver Lead—
Carthagena, 7,499 bars Locke, Blackett, & Co.
,, 1,620 J. Cameron, Swan, & Co.
Soap—
Rotterdam, 2 cs. Tyne S. S. Co.
Starch—
Rotterdam, 119 cs. Tyne S. S. Co.
Tartaric Acid—
Rotterdam, 2 cs. Tyne S. S. Co.
Ultramarine—
Rotterdam, 1 cs. Tyne S. S. Co.

Varnish—
Amsterdam, 3 cks. W. Swanston & Sons

Wood Pulp—
Arendal, 400 bls. P. H. Matthiessen & Co.
Christiania, 160 "
Gothenburg, 17 pks.
Rotterdam, 117 bls. Tyne S. S. Co.

GOOLE.

Week ending July 12th.

Barytes—
Antwerp, 170 bgs.

Caoutchouc—
Boulogne, 10 cks.
Hamburg, 1 cs.

Coal Products—
Alizarine
Rotterdam, 47 brls.

Colours—
Hamburg, 23 cks, 30 cs.

Dyestuffs *(otherwise undescribed)*
Amsterdam, 2 cks.
Boulogne, 81 4 cs 63 pks.
Rotterdam, 311 49

Farina—
Delfszyhl, 400 bgs.

Glucose—
Hamburg, 20 cks.

Glue—
Hamburg, 1 ck.
Rotterdam, 60 bgs.

Oxalic Acid—
Hamburg, 5 cks.

Phosphates—
Dunkirk, 80 t.
Ghent, 80

Potash—
Dunkirk, 56 dms.
Hamburg, 51

Pyrites—
Huelva, 1,190 t.

Saltpetre—
Hamburg, 69 cks.
Rotterdam, 100 bgs.

Starch—
Ghent, 192 cs.

Waste Salt—
Hamburg, { 880 t. / 496 bgs. / 51 cks.

Wood Pulp—
Christiania, 4,176 bs.

GRIMSBY.

Week ending July 15th.

Alkali—
Hamburg, 2 cs.

Caoutchouc—
Rotterdam, 1 cs.

Chemicals *(otherwise undescribed)*
Hamburg, 42 cks 8 pks.

Colours—
Antwerp, 16 cks. 1 cs. 112 pks.
Hamburg, 54 11 108
Rotterdam, { 5 / 100 bgs. 3

Dyestuffs—
Extract
Hamburg, 2 cs.

Farina—
Hamburg, 80 bgs.

Ferro Chrome—
Antwerp, 40 cs,

Salt—
St. Ubes, 1,000 t.

Wolfram Ore—
Hamburg, 11 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending July 19th

Alkali—
Pt. Elizabeth, 60 t. 3 c. £331

Ammonia—
Hamburg, 16 c. £37
Perth, 22 pks. 12

Ammonia (Anhydrous)—
Cologne, 50 cylds. £140
Dusseldorf, 18 44

Ammonium Carbonate—
Amsterdam, 1 t. £31
Antwerp, 5 10 c. 150
Bahia, 1 40
B. Ayres, 1 23

Ammonium Sulphate—
Antigua, 25 t. £37
Antwerp, 42 49
Barbadoes, 125 3 c. 1,509
Bremen, 73 882
Stettin, 51 625

Arsenic—
B. Ayres, 2 c £43
Karachi, 10 6 bbl. 33
Sydney, 2c dms. 21

Boracic Acid—
Bombay, 1 t. £25
Melbourne, 1 24

Borax—
Sydney, 13 c £12

Carbonic Acid Gas—
Channel Is., 81 tubes. £30
Rotterdam, 3 cylds. 15

Caustic Potash—
Lyttelton, 2 t. 13 c. £75

Caustic Soda—
Canterbury, 4 c £11
Cape Town, 15 11
Pt. Elizabeth, 3 t. 11 74
Townsville, 1 6

Chemicals *(otherwise undescribed)*
Adelaide, 2 cs. £45
Amsterdam, 10 kgs. 52
Antwerp, 26 cks. 1 c pks. 56
Auckland, 10 3 35
Bombay, 5
Boulogne, 7 64
Brussels 20 kgs. 2 159
Copenhagen, 10 cks. 8
Durban, 1 3 98
Halifax, 10 32
Hamburg, { 16 / 12 kgs. 31
Karachi, 3 25
Melbourne, 50 62
Montreal, 4 cks. 50
New York, 12 46
Perth 10 15
Pt. Elizabeth, 18 4 7
Rotterdam, 10 kgs. 62
Singapore, 400 3
Sydney, 4 86
Toronto, 5 44
Zanzibar, 3 37

Citric Acid—
Bombay, { 2 cs. / 8 c. £76
Danzig, 1 ck. 44
Dunedin, 2 13
Hamburg, 10 65
Perth, 1 9
Melbourne, 20 kgs. 153
Rotterdam, 1 7
St. Petersburg, 5 44
Sydney, 2 18
Townsville, 1 8

Coal Products—
Alizarine
Boston, 17 cks. £175
Aniline Dyes
Calcutta, 4 brls. £30
Dunedin, 3 cs. 97
Melbourne, 1 23
Anthracene
Cologne, 240 cks. £342
Benzol
Boulogne, 75 cks. £148
Rotterdam, 30 106
Stockholm, 4 dms. 50
Carbolic Acid
Bombay, 26 cks. 2 cs 4 dms. £36
Boulogne, 67 600
Coal Tar Dyes
Calcutta, 9 kgs. £130
Creosote
Dieppe, 23 500 galls. £123
Naphtha
Dunedin, 70 dms. £29
Naphthaline
Rotterdam, 100 bgs. £52
Pitch
Antwerp, 250 t. £275
Gibraltar, 7 cks. 5
Hamburg, 2 brls. 5
Helsingfors, 225 t. 279
Raumo, 375 469
Sydney, 5 7
Tar
Delagoa Bay, 90 dms. £10
Durban, 102 12
Helsingfors, 1,450 cks. 860
Raumo, 1,100 674
St. John's, Nfd, 20 brls. 17
Trinidad, 12 rnlts. 9
Tar Oil
Bremen, 5 cks. £13
Gothenburg, 520 359

Copper Sulphate—
B. Ayres, 1 c. £25
Pt. Elizabeth, 11 20 fkns. 28

Cream of Tartar—
Hobart, 15 kgs. £59
Nelson, 20 cs 69
Pt. Elizabeth, 3 c. 14
Wanganui, 4 15

Disinfectants—
Cape Town, { 40 cks. / 20 kgs. £26
Chinde, 1 t. 16 c 48
Delagoa Bay, 22 pks. 18
Jamaica, 16 dms. 18
Lyttelton, 5 cs. 14
Penang, 100 54
Seville, 106 pks. 67
Sydney, 17 39

Glycerine—
New York, 60 t. 1 c. £1,620

Guano—
Durban, 5 t. 19 c. £60

Manure—
Antigua, 20 t. £96
Barbadoes, 106 12 c. 975
Berbice, 25 240
Christchurch, 200 613
Colombo, 20 150
Landerneau, 105 840
Malaga, 50 14 400
Sables d'Olonne, 70 1 355

Pearl Ashes—
Cape Town, 11 c. £8

Potassium Bichromate—
Dunedin, 1 t. 5 c. £45
Lyttelton, 1 2 33

Potassium Cyanide—
Adelaide, 2 t. £250
Fremantle, 17 9 c. 1,660
La Paz, 200 cs. 1,120
Mackay, 40 480
Normanton, 10 120
Townsville, 10 1,250

Potassium Prussiate—
Yokohama, 1 t. £71

Saltpetre—
Madeira, 8 c. £10
Sydney, 2 t. 7 197

Sheep Dip—
B. Ayres, 16 t £930
Cape Town, 100 dms. 20
Durban, 19 c. 33
Hobart, 1 12 48
Lyttelton, 1 cs. 3 bxs. 23
M. Video, 13 17 c. 312
New York, 11 cks. 15
Pt. Elizabeth, 20 12

Soda—
Cape Town, 16 t. 9 c. £57
Pt. Said, 1 2 6
Zanzibar, 1 5 9

Soda Crystals—
Cape Town, 3 t. 10 c. £10

Sodium Bicarbonate—
Trinidad, 12 c. £5

Sodium Hyposulphate—
Dunedin, 2 t. £15

Sulphur—
Cape Town, 4 t. 18 c. £4
Colombo, 10 5
E. London, 130 pks. 51
Pt. Elizabeth, 2 5 1

Sulphuric Acid—
Colombo, 13 cs. £16
Trinidad, 1 t. 1 c. 10

Superphosphates—
Riga, 300 t. £750

Tartaric Acid—
Boulogne, 5 c. £29
Townsville, 2 14

LIVERPOOL

Week ending July 19th.

Acetic Acid—
Vera Cruz, 6 c. £6

Alum—
Philadelphia, 25 cks. £10

Ammonium Carbonate—
Copenhagen, 2 t. £55
Vera Cruz, 12 c. 19

Ammonium Sulphate—
Genoa, 1 t. £12
Gd. Canary, 10 120
Las Palmas, 25 4 c. 308
New York, 76 935
Philadelphia, 51 2 610
Samarang, 77 2 q. 891
Shanghai, 2 16
Sourabaya, 66 8 1 7,411

Arsenic—
Ceara, 4 c. £6

Basic Slag—
Le Boucan, 851 t. 4 c. 39 £1,276

Bleaching Powder—
Amsterdam, 17 cks.
Bilbao, 43
Boston, 142
Calcutta, 150 cs.
Christiania, 15
Ghent, 71
Montreal, 22
Nantes, 33
New York, 25 25 brls.
Rotterdam, 7
Rouen, 13
Tampico, 9

Boracic Acid—
Melbourne, 1 t. £28

Borax—
E. London, 9 t. £435
Hamburg, 5 7 c. 50
Havana, 16 7 50
Messina, 1 15
Santander, 3 2 24
Vera Cruz, 2 30

Calcium Carbide—
Valparaiso, 5 c. £10

Calcium Chloride—
Melbourne, 10 t. £21

Castor Oil—
Panama, 30 cs.

Caustic Potash—
Rotterdam, 4 t. 19 c. £140

Caustic Soda—
Amsterdam, 92 dms.
Barcelona, 15
Bombay, 35
Boston, 50 brls.
Cardenas, 18
Ciudad Bolivar, 20
Colombo, 11 bxs.
Copenhagen, 62
E. London, 3 cs
Galatz, 51
Genoa, 30
Ghent, 17
Hamburg, 59 1
Hiogo, 337
Hong Kong, 3 cks.
Kingston, Ja., 10
Limassol, 5
Lisbon, 49
Malaga, 10
Marseilles, 20
Mauritius, 33
Melbourne, 61
Monterey, 83
Montreal, 4
New York, 50
Pasages, 150
Pt. Natal, 1 t. 7 c.
Rangoon, 35
Rio de Janeiro, 10
Rotterdam, 63
Rouen, 118
San Juan, 8

[illegible]

Chemicals [illegible]

[illegible]

China Clay—

[illegible]

Citric Acid—

Fiume, £35

Coal Products—

Aniline Colours

[illegible]

Aniline Colours

[illegible]

Aniline Oil

[illegible]

Aniline Salt

[illegible]

Carbolic Acid

[illegible]

Creosote Oil

[illegible]

Pitch

[illegible]

Tar

[illegible]

Copperas—

[illegible] £27

Copper Sulphate—

[illegible] £5

Disinfectants—

[illegible] £7

Glycerine—

[illegible] £30

Magnesia—

[illegible]

Manure

[illegible] £7

Oxalic Acid—

Montreal, 1 t. 18 c. 3 q. £56

Paint—

Antwerp,	95 kgs.		
Accra,	280		
Amsterdam,		167 dms.	
Antwerp,		12	
Barbadoes,	8		
Belize,	130		
Bona,		5 cks.	
Bristol,		10 brls.	20 dms.
Bona,		27 pks.	
Cadiz,	52		
C. Coast Castle,	100		
Carthagena,		2 cks.	
Cienfuegos,		7	
Constantinople,	7		
Demerara,	146	14	
Gibraltar,	110	25	
Grenada,		2	
Havana,		15	
Kingston,	25		
Lagos	40	3	
		4 dms.	
La Guayra,	20		
Lanzarote,		2 cks.	
Leghorn,		2	
Malta,	138		
Matanzas,		9	
M. Video,		1	
Nassau,		2	
New York,	120	15 pks.	
		45 dms.	
Palermo,		5 cs.	31 cks
Para,		5 brls.	
Penang,	50	30 dms.	
Porto Alegre,		1 cs.	
Sagua la Grande,		2 cks.	
San Juan,	800		
Santiago,		1	
Sekondi,	1		
Talcahuano,	40		
Valparaiso,	314	13	
Ylo Ylo,		5	

Painters' Colours—

B. Ayres,	177 cks.	
Havana,	7 brls.	
Leghorn,	37	
Philadelphia,	6	
Rotterdam,	6 cs.	

Paraffin Wax—

M. Video,	2 cs.	
New York,	1 0	
Vera Cruz,	66 bgs.	

Phosphorus—

Demerara,	2 cs.		£16
Hiogo	3 t.	10 c.	666
M. Video,	12		80

Phosphorus (Amorph.)—

Rio de Janeiro,	6 cs.	£72

Potash—

Havana,	4 c.	£7

Potassium Bichromate—

Bilbao,	5 cks.			£110
Dunedin,		10 c.		10
Santos,		5 brls.		8
Windsor,	3 t.	10 c.	3 q.	114
Yokohama,	5	12		174

Potassium Chlorate—

Ancona,		15 c.		£23
Bari,	4 t.	15		147
Hiogo,	30			936
Naples,	1			30
New York,	15			477
Oporto	0			16
Rio de Janeiro	4	13		133
Vera Cruz,	2			60

Potassium Cyanide—

Delagoa Bay,	4 c.		£11
Guaymas,	20 t.		1,913
Rio de Janeiro,	4		11

Potassium Prussiate—

Vera Cruz,	1 t.	10 c.	£116

Potassium Sulphate—

New York,	7 t.	£3

Salammoniac—

Alexandria,	2 t.			£66
Bilbao,	1			34
Galatz,		12 c.		20
Oporto,		3	2 q.	4

Salt—

Aalborg,	622 t.		
Alassa,	5 5		
Amsterdam,	161		
Assinee		100 sks.	
Baltimore,		3,200	
Belize,		1,386	
Boston,	1,700 bgs.	1,240	
	30 t.		
Brussels,	3	12 c.	
Calcutta,	10,497		
Cameroons,	126	15	
Cape Town,	26		
Chicago,	35		
Delagoa Bay,	15	14	
Dunedin,	72		
Eloby,	5	10	
Gd. Bassa,	85		
Halifax, N.S.,	159		
Hamburg,	99	19	
Kingston Jam.,	42	17	
Lagos,	176		
Lahou,	25		
Landana,	15		
Loango,	7	10	
Montreal,	1,144	9	
Mossel Bay,	85		
N Orleans,	175		
New York,	30		
Para	387	3	
Pt. Natal,	169		
Quebec,	325		
Rangoon,	85		
Rio del Rey,	80		
Rotterdam,	190		
Salt Pond,	85		
Santos,		100 cs.	
Seydi-fiord,	98		
Sherbro,	20	2 c.	
Svendborg,	423		
Sydney,	300		
Trinidad,	87		
Wellington,	161	5	

Saltpetre—

Dunedin,	1 t.		£21
Wellington,	1	5 c.	27

Sheep Dip—

Sydney,	10 cks.	110 dms.

Soap—

Addah,	100 bxs.		
Algoa Bay.	2,530		
Antofagasta,		20 cs.	
Antwerp,	100		
Auckland,		550	
Axim,	220		
Barbadoes,	580		
Belize,	355		
Bombay,	750	55	
Boston,			30 pks.
B. Ayres,		30	
Calcutta,		56	
Cape Town,	727	15	
C. C. Castle,		2	
Christiania,	120		10 bdls.
Colombo,	150	28	6 crts.
Corunna.	100		
Delagoa Bay,	250	3	
Dunedin,		750	
Durban,	250		
E. London	1,050		
Galatz,		1 brl.	
Genoa,	100		
Ghent,	100		
Gibraltar,	110		
Grenada,	200		
Greytown,	250		
Hong Kong,	21		
Karachi,	200		
Kingston, Jam.,	1,600	82 cs.	
Lagos,		4	
La Guayra,		1	
Landana,	180	2	
Madras,	15	27	
Montreal,		100	
Mossel Bay,	61		
Naples,		7	
New York,		44	
Pt. Natal,	452	10	
Pretoria,	2,400		
Punta Arenas,	40		
Punta Gorda	200		
Rangoon,	855	10	
Rio de Janeiro,		40	
Rotterdam		784	
St. John's, N'fd	230	26	9 pks.
Rawal Pindi,		12	
San Francisco,			3 cks.
Shanghai,	2,000	11	
Sierra Leone,	53		
Singapore,	3,671		
Sydney,		4	
Talcahuano,		14	
Tocopilla,		1	
Toronto.		1,000	
Trinidad,	600		
Valparasio,	269		3 bdls.
Yloilo,		1	
Vera Cruz		1	

Soda—

Kobe,	100 kgs.	

Soda Ash—

Antwerp,	600 bgs.	
Boston,		36 cks.
B. Ayres,		360 pks.
Christiania,	150 kgs.	
Gothenburg,		48 cks.
Hamburg,		68
Hobart,		40
Kingston, Jam.,		12
Libau,		20
Kobe,		50
Melbourne,		121
M. Video,		5
New York,	112 tcs.	
Oporto,		20
San Sebastian,	150 bgs.	
Seville,	100	
Sherbrooke,	125	
Valparaiso,	24 brls.	

Soda Crystals—

New York,		560 cks
Oporto,	25 brls.	
St. John's, N'fd.,	30 kgs.	
Tampico,	40	

Sodium Bicarbonate—

Barcelona.	150 kgs.	
Cape Town,	8	
Christiania,	20	
Collinwood,	40	
Delagoa Bay,	100	
Ghent,	50	
Havana,	10 bgs.	
Johannesburg,	20	50
Launceston,	20	4 ck
Melbourne,	434	
Rosen,		175 da
St. John's, N'fd.,	20	
Seville,	75	
Tampico,	70	30
Teneriffe,	20	
Toronto,	80	
Valparaiso,		10 ck
Vera Cruz,		3

Sodium Carbonate—

New York,	70 brls.	

Sodium Chlorate—

Boston,	100 kgs.	
Shanghai,	10 cks.	

Sodium Naphthionate—

Santander,	2 t.	

Sodium Prussiate—

Quebec,	13 cks.	

Sodium Sulphate—

Wellington,	4 t.	19 c.	3 q.

Starch—

Lisbon,	2 cks.	

Sulphur—

Boston,	160 t.	4 c.	
Maceio,		15	2 q.
Natal,	15	2	1

Sulphuric Acid—

M. Video,	33 cs.	

Superphosphates—

Gd. Canary,	10 t.		
Libau,	930		
Malaga,	150	1 c.	
Nantes,	850 bgs.		
Natal,	300		

Varnish—

Alexandria,	2 cs.	
Antwerp,	30 cks.	
Campeche,	2	
Cape Town,	4	
Cartagena.	8	
Halifax, N.S.,	1	
Lagos,	4	
La Guayra,	1	
Marseilles,		3 da
Rio G. do Sul		3
Seville,	1	
Valparaiso,	7	

White Lead—

Calcutta,	3 cks.	

Zinc Chloride—

Bombay,	5 t.	14 c.	2 q

MANCHESTE

Week ending July 19th

Ammonium Carbonate—

Copenhagen,	10 kgs.	

Chemicals (*otherwise undesc*

Bombay,		67 brls.

Coal Products—

Aniline Colours

Germany,	6 kgs.	

Aniline Oil

Belgium,		2
Germany.		3

Carbolic Acid

Belgium,	21 cks.	
France,	120 btls.	

Naphtha

Lille,		16 brls.

Naphthol

Belgium,		2 brls.

Pitch

Belgium,	402 t.	7 c.

Toluol
Germany, 8 dms.
Copperas—
Mohammerah, 60 brls.
Dyestuffs (*otherwise undescribed*)
Norway, 27 cks.
Dyestuffs—
Extract
France, 2 cs.
Farina—
Holland, 40 sks.
Glue—
Germany, 22 cks.
Holland, 19
Glycerine—
France, 20 dms.
Manure—
Sweden, 81 bxs.
Paraffin Wax—
Holland 9 cs.
Soap—
Holland. 50 cs.
Sodium Naphthionate—
Germany, 25 cks.
Tallow—
Bombay, 60 brls.
Germany, 27 cks.
Varnish—
Bombay, 52 dms.
Zinc Chloride—
Bombay, 33 cks.
Germany, 6
Holland, 1

HULL.

Week ending July 15th.

Alkali—
Bergen, 5 cks.
Riga, 100
Trieste, 8
Ammonium Sulphate—
Hamburg, 400 bgs.
Palermo, 99
Stettin, 140
Basic Slag—
Abo, 2,032 bgs.
Riga, 3,110
Bleaching Powder—
Konigsberg, 16 cks.
Caustic Soda—
New York, 200 dms.
Chemicals (*otherwise undescribed*)
Amsterdam, 25 cks.
Antwerp, 1 17 pks.
Copenhagen, 3
Danzig, 8
Genoa, 20
Gothenburg, 1 5 cs.
Hamburg, 10
Marseilles, 19
New York, 147
Naples, 1 1
Palermo, 1
Reval, 21
Riga, 27
Rotterdam, 23 61
St. Petersburg, 50 6 1
Uleaborg, 4
Wasa, 4
Coal Products—
Creosote
Bergen, 5 cks.
Boston, 170
Pitch
Antwerp, 5 t.
Riga, 6 cks.
Tar
Antwerp, 4 cks
Dunkirk, 30
Drontheim, 2
Hamburg, 3
Libau, 1
Rotterdam, 26
Wasa, 125
Cottonseed Oil—
Amsterdam, 11 t. 18 c.
Antwerp, 10 3
Bergen, 2
Bordeaux, 5 2
Christiansand, 7
Copenhagen, 1 14
Dunkirk, 1 16
Gothenburg, 5 18
Hamburg, 11 11
Harlingen, 2 1
Norkoping, 5 3
Rotterdam, 25 1
Stockholm, 7 13
Glue—
Drontheim, 3 bls.
New York, 52 cks.
Linseed Oil—
Abo, 15 t. 9 c.
Antwerp, 2 15
Christiania, 5 16
Christiansand, 1 15
Christiansund, 18
Copenhagen, 7
Drontheim, 1 1
Hamburg, 2 12
Rotterdam, 1 14
Rouen, 1 15
Venice, 3 10
Manure—
Antwerp, 10 cks.
Jersey, 1,150 bgs.
Paint—
Antwerp, 59 cks.
Painters' Colours—
Amsterdam, 17 cks. 10 dms.
Antwerp, 20 103 cs. 172 pks.
Bremen, 2
Boston, 100 dms.
Copenhagen, 13 4 1 pk.
Dunkirk, 6
Fiume, 3
Genoa, 16
Ghent, 24 dms.
Hamburg, 4 3
Harlingen, 3
Jersey, 1 2 pks.
Konigsberg, 35
Leghorn, 20
New York, 178 10 dms.
Rotterdam, 4 3
Rouen, 19
Stettin, 38 1
Stockholm, 1
Trieste, 1
Venice, 5
Soap—
Amsterdam, 50 cs.
Antwerp, 4
Christiania, 5
Starch—
Bergen, 1 cs.
Tallow—
Amsterdam, 10 cks.
Antwerp, 21
Libau, 25
Rouen, 69
Varnish—
Antwerp, 6 cks. 1 cs.
Bari, 2
Boston, 2
Christiania, 1
Copenhagen, 3
Palermo, 2
Stockholm, 2

GLASGOW.

Week ending July 20th.

Ammonium Sulphate—
Amsterdam, 263 t. 9 c.
Antigua, 7 6
Italy, 20 5
Philadelphia, 51 3 q.
Sicily, 11 3 3
Borax—
Amsterdam, £23
Rotterdam, 50
Castor Oil—
Sydney, £156 5s.
Coal Products—
Creosote
Bayonne, £4,039 10s.
Creosote Oil
Bergen, £10
Pitch
Canada, £364
Gothenburg, 320
Tar
Christiania, £59 10s.
Cyanide—
Taltal, £214
Gelatine—
Canada, £73
Lead Nitrate—
Italy, £22
Linseed Oil—
Canada, 4 t. 6 c. 3 q.
Kingston, 8 6
Sydney, 2 6 3
Litharge—
Amsterdam, £40
Manganese Oxide—
U.S.A., 10 t. 4 c.
Painters' Colours—
Durban, £126
Hobart, 41
Natal, 21
Sydney, 718
U.S.A., 359
Paraffin Wax—
Genoa, £147
Italy, 126
Sicily, 81
Potassium Bichromate—
Amsterdam, £305
Oporto, 50
Quebracho Extract—
Belgium, £40 14s.
Red Lead—
Amsterdam, £20
Canada, 3 t.
Salammoniac—
Italy, £118
Sheep Dip—
B. Ayres, £46
Soap—
Cape Colony, 8 t. 18 c. 2 q.
Durban, 4 8 1
St. John's, N'd., 1 2
Soap Lyes—
U.S.A., 27 t. 9 c.
Starch—
Rotterdam, £300
White Lead—
Amsterdam, £5

TYNE.

Week ending July 15th.

Alkali—
Amsterdam, 31 t. 3 c. 1 q.
Hamburg, 5 22
Riga, 53 9 3
Rotterdam, 5 18 2
St. Petersburg, 29 1 2
Ammonia—
Pomaron, 6 c. 2 q.
Ammonium Carbonate—
Halmstadt, 1 t.
Ammonium Sulphate—
Odense, 5 t.
Antimony—
Montreal, 8 t. 10 c.
Rotterdam, 3
St. Petersburg, 40
Barium Binoxide—
Rouen, 17 t. 18 c. 2 q.
Barium Carbonate—
Hamburg, 151 t. 10 c.
Rouen, 30 5
St. Petersburg, 56 10
Bleaching Powder—
Amsterdam, 24 t. 7 c. 2 q.
Bergen, 5 4 2
Christiania, 2
Hamburg, 10 4 3
Rotterdam. 11 6
St. Petersburg, 25 5 1
Borax—
Aalborg. 1 t. 1 c. 3 q.
Castor Oil—
Montreal, 11 t. 14 c. 3 q.
Caustic Soda—
Abo, 9 c. 1 q.
Antwerp, 10 t. 3
Christiania, 1 5
Copenhagen, 8 16 2
Hamburg, 10 10
Rouen, 5 1
Seville, 66 2 3
Stockholm, 15 1 3
Venice, 32 7 2
Coal Products—
Carbolic Acid
Rotterdam, 5 t. 16 c. 3 q.
Hydrochloric Acid—
Pomaron, 18 c.
Linseed Oil—
Pomaron, 6 c. 1 q
Litharge—
Amsterdam, 1 t. 2 c. 2 q.
Antwerp, 2 14 2
Flensburg, 5 3
Riga, 16 1
Magnesia—
Antwerp, 9 c.
Barcelona, 6 t. 17 3 q.
Hamburg, 3 5 3
St. Petersburg, 12 2
Manure—
Barcelona, 8 t. 11 c. 2 q.
Nitric Acid—
Pomaron, 5 c. 2 q.
Orange Lead—
Barcelona, 10 c.
Paint—
Amsterdam, 1 t. 5 c.
Antwerp, 1
Bergen, 9 1 q.
Copenhagen, 1
Hamburg, 2
Painters' Colours—
Antwerp, 2 c.
Christiania, 1 1 q.
Hamburg, 5 cks.
Pyridine—
Hamburg, 12 c.
Red Lead—
Amsterdam, 11 t. 1 c. 1 q.
Copenhagen, 1 8 2
Flensburg, 5 7 3
Hamburg, 8 14
Montreal, 2 18 3
Riga, 12
Ronne, 1 13
Rotterdam, 1 13 2
St. Petersburg, 13 14 2
Stockholm, 3 17 3
Salt—
Abo, 25 t.
Soda—
Amsterdam, 20 t.
Christiania, 8 14 c.
Rotterdam, 35 7 1 q.
Soda Ash—
Bergen, 10 t.
Hamburg, 9 16 c. 3 q.
Rotterdam, 1 6 2
Sodium Bicarbonate—
Christiania, 2 t.
Sodium Hyposulphite—
Hamburg, 11 t. 1 c. 1 q.
Sodium Prussiate—
St. Petersburg, 5 t. 2 c. 1 q.
Sulphuric Acid—
Pomaron, 1 c. 3 q.
Tallow—
Rotterdam, 5 t. 10 c. 3 q.
Varnish—
Pomaron, 2 q.
White Lead—
Montreal, 59 t. 11 c. 2 q.
Pomaron, 1 2 1

GOOLE.

Week ending July 12th.

Chemicals (*otherwise undescribed*)
Amsterdam, 20 cks.
Hamburg, 16 pks
Rotterdam, 5 dms.
Coal Products (*otherwise undes.*)—
Amsterdam, 100 cks.
Antwerp, 12 1 cs.
Boulogne, 40 7 pks, 2 dms.
Ghent, 1
Rotterdam, 100
Dyestuffs (*otherwise undescribed*)
Antwerp, 10 cks.
Hamburg, 4 1 cs.
Manure—
Rotterdam, 194 bgs.
Painters' Colours—
Ghent, 4 cks. 3 pks.

GRIMSBY.

Week ending July 15th.

Alkali—
Dieppe, 1 ck.
Caoutchouc—
Malmo, 1 cs.
Coal Products (*otherwise undes.*)—
Dieppe, 1 kg. 180 cks.
Hamburg, 3 pks.
Manure—
Hamburg, 2,001 bgs.
Painters' Colours—
Antwerp, 32 kgs. 1 cs.
Hamburg, 3 cks. 11 pks.
Rotterdam, 3 bxls.

PRICES CURRENT.

WEDNESDAY, July 26, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 & 8/3		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric.. .. .. per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¼
Arsenic, white powdered .. .. nett per ton	19	0	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric.. .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¼ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B.. .. .. ,,	0	0	2¾
,, = 24° B.. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate.. .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. .. per ton	12	2	6
,, ,, (grey) Hull .. .. ,,	12	0	0
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide).. .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	42/6 to 65/-		
Bleaching Powder, 35 % .. .. nett ,,	4	5	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	11	10	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk.. .. .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. ..per gallon	0	0	8¾
,, 50/90 ,, ... ,,	0	0	10
Carbolic Acid (crude 60°).. .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7¾
,, (liquid 95/97%) .. .. ..per gallon	0	1	0
Creosote (ordinary) .. .. ,,	0	0	4
,, (filtered for Lucigen light) .. .. ,,	0	0	4¼
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw.. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	10	0
Solvent Naphtha, 90% at 160° .. ..per gallon	0	1	1
Copper .. .. per ton	77	1	3
,, Sulphate .. .. ,,	24	15	0
,, Oxide (copper scales) .. .. ,,	57	0	0
Glycerine (crude) 80% .. .. ,,	26	0	0
,, (distilled S.G. 1250°) .. .. ,,	45	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	15	12	6
,, Litharge Flake (ex ship) .. .. ,,	17	0	0
,, Acetate (white ,,) .. .. ,,	22	0	0
,, ,, (brown ,,) .. .. ,,	17	15	0
,, Carbonate (white lead) pure .. .. .. ,,	18	10	0
,, Nitrate .. .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	4	17	6
,, ,, (grey) (ex ship) .. .. ,,	7	15	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	17	10	0
Linseed .. .. ,,	22	0	0
Stearine .. .. ,,	26	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	5	0
,, Chlorate .. .. per lb.	0	0	3¼
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 %.. per ton	23	0	0
,, ,, ,, 75/80 % .. ,,	18	0	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	0	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	3 11/16
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % ..nett per ton (f.o.r. works)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. works)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. works)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. works)	4	0	0
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. works)	2	10	0
,, Acetate (ex-ship) .. .. ,,	12	15	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax).. .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	8	0	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	7	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	7	7	6
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	6	7	6
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	3	12	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	9
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate.. .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	6¼
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 %.. .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	5	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95%.. .. .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4½
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	6	15	0
,, (Roll Brimstone) ... . ,,	6	0	0
,, Brimstone: Best quality.. .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	25	0	0
Tin Crystals .. .. per lb.	0	0	9
,, English Ingots.. .. .. per ton	147	10	0
Zinc (Spelter) .. .. ,,	25	17	6
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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Advertisements intended for insertion in the curren week's issue should reach the office by **Thursday morning** at the latest.

CURRENT TOPICS.

THE INVESTOR'S COMPLAINT.

AS a general rule the grievances of the average investor have little, if any, interest for us, but seeing that the promotion of industrial companies is becoming fashionable, as witness the increased number of issues last year, it may be as well to utter a word of warning for those who come after.

The bug-bear of the moment seems to be the too frequent arrival of letters of regret *vice* letters of allotment. When Doultons "came out" there was much grumbling from the great investing British public, although it was known that the allotment would be worked on preference lines.

Yet once again we hear a rumbling, and find Dr. Watts must be a little out of order, for

'Tis the voice of th' Investor—
I hear him complain,
You've allotted no shares—?
I'll apply not again.
As a door on its hinges, so he, turns on his heel
Saying: Industrial promotions can go to the Deil.

Such at all events are the feelings of some of the applicants who were left out when the Yorkshire Indigo Dyers' Company, Ltd., went to allotment.

One gentleman has written to the papers about it. He applied for 450 shares, and his friends for £1,200. worth of shares and debentures, but they all had to be content with the customary "regrets." So annoyed is this gentleman at the treatment of the outsiders, whose applications, as he truly states, give importance to the flotation and largely help to create a market for the shares, that he calls the attention of the Stock Exchange Committee to his grievance, and hopes the Committee will mark its sense of disapproval by deferring the special settlement of the Company's shares for a year or two. Whether the Committee will do so is another question altogether. The complainant seems to have a real grievance, however, if, as he implies, there was no intimation in the prospectus that the allotment, like kissing, would go by favour—to customers and others. Anyhow *verb. sap. sat.* and intending promotors of chemical and industrial concerns will know what to do if they wish to appease the aggrieved general investor.

A REVIEW OF THE NITRATE POSITION.

When the chairmen of nitrate companies have to address their shareholders, it frequently happens that we get a better insight into the opinions and objections that stand in the way of the long-promised Combine, than could be obtained in any other way. So it has been with the comparatively youthful Alianza Company. We know that producers have been jibbing over the shares of the production apportioned to them, but there seem other causes for objection. Mr. H. C. Gibbs thinks that mere combination to restrict output will do little to relieve the other evils which exist. These are notably

the irregularity of arrival in the season, which checks consumption, when, as happened for some weeks this season, there was not enough nitrate to meet the demand; and also the irregularity of prices which makes the retailers always liable to be undersold, and therefore causes them to neglect an article on which they may make a huge loss.

Nitrate of soda keeps low in price partly because at any moment labour might become more plentiful, and production may be increased, and more particularly because of the active competition that exists among producers to sell. It is this eagerness to sell their nitrate at any price, provided only that they can sell it, that renders the industry, as a whole, so unprofitable, and there is no reason to suppose that this condition would disappear if a combination were formed to restrict production.

In the opinion of Mr. Gibbs and also of many others familiar with the nitrate industry, its salvation lies in the control of production, combined with centralisation of sales. If this were carried out, prices would be maintained at a remunerative level, stocks could be held without danger, to meet any possible increase in consumption, and above all, prices would be fixed so that retailers and small dealers could buy and sell at an assured profit. Thus those people, who above all others have it in their power to push the consumption of the article, would have a great inducement to do so; whereas at present they are shy of dealing in nitrate.

This is very true, but all the same we cannot share fully in the firm belief of Mr. Gibbs that the scheme for the centralisation of sales will be as favourably received as he thinks. On the other hand to urge a Combine for the sake of restricting output alone is as useless as flogging a dead horse. The production at present is very little in excess of the demand, and all a Combine, in the old sense of the word, could offer would be an assurance that the present margin should be maintained. Seeing that to many companies the precise regulation of production and consumption is of no practical importance, it is not surprising that they are indigent of interest and generally callous. If the centralisation of sales were made the main plank of a combination scheme, we think most, if not all producers would be on the alert. In point of fact, Nitrate should be much easier to "control" than iodine or guano, for Nature herself has created a virtual monopoly.

MERSEY AND IRWELL JOINT COMMITTEE.

A MEETING of the committee was held on Monday, at 44, Mosley-street, Manchester, Alderman C. Brierley, of Bury, presiding.

The Leigh Rural District Council having asked for the withdrawal of summonses for offences committed by them at Astley, Culcheth, and Lowton, the consulting sub-committee recommended that the Council be informed that if they would consent to an order, subject to the approval of the Court, a period of six months would be granted them within which to carry out the necessary works.

Sir Henry Roscoe had reported that the effluent from the Manchester sewage works was a bad one, being dirty brown in colour and containing black suspended matter, with a strong sewage smell. The Salford effluent Sir Henry certified to be bad, of grey colour, containing dark suspended matter, with a faint smell. Analyses of 24 samples of effluents from the works of local authorities showed that eight were good, four fair, seven unsatisfactory, and five bad. The unsatisfactory samples were obtained from the works of the Haslingden, Rawtenstall, and Bacup Joint Board, the Norden, Marple, Prestwich, Worsley, and Swinton and Pendlebury Urban District Councils (Pendlebury), and the Bucklow Rural Council (Hale).

Sir Henry Roscoe informed the Board that there was a slight improvement in the Manchester and Salford effluents. He proposed to undertake during the hot weather a complete analysis of the water of the rivers from their source down to the docks, which would probably lead to important conclusions. During the present climatic conditions they could not expect the streams to show results of a very favourable character. Still, the committee was doing excellent work. The rivers were decidedly better, and in this hot weather manufacturers were able *to use* water they could not have used previously.

THE MANCHESTER GAS UNDERTAKING.

RECORD PROFITS.

THE annual report of the Gas Committee, issued last week, shows the profits for the twelve months ending 31st March last to have been larger than in any previous year. The gross profit on the year's working was £139,052. 8s. 7d., and the net profit £74,052 10s. 10d. Of the latter amount the Committee has paid over to the city fund, in reduction of rates, £51,200. If the money were used instead to reduce the price of gas to consumers the reduction would be equal to 4½d. per 1,000 cubic feet, and the price of gas would therefore be not 2s. 3d., as now, but 1s. 10½d. The following are the main features of the report:—

The coal and cannel carbonised was in 1899, 426,831 tons; in 1898, 407,236 tons. The illuminating power of the gas sent from the works was equivalent to 19·36 standary sperm candles, as against 19 51 for last year. The quantity of gas transmitted from the works shows an increase of 303,553,000 cubic feet, or 7·31 per cent., as compared with a decrease of 28,819,000 cubic feet, or 0·69 per cent., in the previous year. The total output and quantity unaccounted for, compared with the previous year, is as follows:—

	Gas sent out from the works. Cubic feet	Gas unaccounted for. Cubic feet.	Per centage of Loss.
1899	4,457,073,000	171,735,000	3 85
1898	4,153,520,000	148,549,000	3 58

The number of gas consumers on the 31st March was:—Within the city, 97,312; beyond the city, 21,646; total, 118,958; increase in 1899, 6,695. The use of prepayment meters is still extending. The number of these meters in use at the end of the financial year was 26,751, as compared with 22,761 in the previous year—an increase of 3,990, of which increase 3,457 have been fixed in the city and 533 in the out-townships. The quantity of gas consumed by these meters was 167,273,000 cubic feet, an increase of 50,086,000 cubic feet, or 42·74 per cent. on the previous year. The application of gas for purposes other than lighting continues to increase. The number of gas fires, cookers, and other appliances on hire on 31st March was 7,336, and the number of gas engines in use, 1,375, as compared with 5,188 and 1,257 respectively for the year ended 31st March, 1898. The quantity of gas used by cookers, fires, and engines, is estimated at 310,000,000 cubic feet, being an increase of 8·77 per cent on last year's figures. The total amount of revenue was £594,970., as compared with £553,642. in 1898, being an increase of £41,328.

BY-PRODUCTS REVENUE.

The revenue was derived as follows:—Gas rentals, etc., within the city, £413 942; gas rentals, etc., beyond the city, £84,215.; coke, £48,362.; tar, £24,568.; ammonia water, £23,357.; sundry receipts, £526.; total, £594,970. The amount paid for coal, cannel, and oil, including the cost of unloading, was £231,176. The cost of this material per ton carbonised was 10s. 9·98d., against 10s. 10·38d. for the previous year, a gain to the Committee of 0·40d. per ton, which on the total carbonisation of 426,831 tons amounts to £711. The whole of the works and plant have been kept in a state of thorough repair out of revenue. The gross profit on the year's working was (as already stated) £139.052. 8s. 7d. The sum of £37,078. 15s. 9d. was paid for interest, and £27,921. 2s. has been placed to sinking fund as required by the Acts of Parliament under which the money is borrowed. The net profit, therefore, amounted to £74,052. 10s. 10d. Of this amount £51,200. was paid over to the city fund, £1,192. 18s 4d. has been placed to suspense account on account of the outlay on carburetted water gas plant, and the balance, £21,659 12s. 6d., has been carried to contingent fund. A large increase in the consumption of gas continues. During the past five years the increase has been as follows:—

	Cubic feet.	Increase per cent.
Year ended March—1895	151,032,000	4·28
Year ended March—1896	79,503,000	2·16
Year ended March—1897	419,769,000	11·6
Year ended March—1898 (decrease)	28,8 9,000	0 69
Year ended March—1899	303,553,000	7·31
Average	185,000,000	5·24

From the end of March last to the end of June the increase has been 9 58 per cent. over the corresponding period of last year. The attention of the Committee and their engineer is being given to an extension of manufacturing plant on an early date, so as to be prepared to meet the increasing demand. To obtain the requisite capital for this purpose application was recently made to increase the borrowing powers for the gas undertaking by an additional £500,000. This application has been approved and confirmed by Parliament, and the requisite steps will be taken to obtain the funds for such additional buildings, plant, and machinery as may be from time to time decided upon. The total length of mains now laid is 1,383,811 yards, or 786¼ miles and 11 yards.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Drying Turf or Peat. P. Nordmann. 14,711. July 17.
Improvements in Tanning. C. S. Dolley and A. F. Crank. 14,775. July 18.
Improved Filter Beds. L. K. Davis. 14,836. July 18.
Removing Boiler Incrustations. W. Jackson. 14,862. July 19.
Manufacture of Mordanting Products. F. M. and D. D. Spence and A. Shearer. 14,895. July 19.
Acid Resisting Materials. E. Borsari. 14,919. July 19.
Secondary Batteries. H. Weymersch. 15,017. July 21.
Improved Cement. W. R. Cochrane. 15,026. July 21.
Extracting Metals from Oxides. J. B. de Alzugaray. 15,110. July 22.
Treating Antimony Ores. J. P. van de Ploeg and P. J. Eussen. 15,121. July 22.
Manufacture of Cement. C. J. Potier. 15,132. July 22.
Manufacture of Sulphuric Acid. A. Clemm. 15,151. July 22.
Manufacture of Sulphates and Chlorine. A. Clemm. 15,152. July 22.
Refining Glycerine. E. G. Scott. 15,159. July 22.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

An Improved Electrolytic Apparatus for the Production of Alkali. W. Thompson (Lord Kelvin), Glasgow University, N.B. Eng. Pat. 18,522. August 30, 1898.

This is an improved form of cell, in which mercury is used as a cathode. It is of rectangular shape, with a partition dividing it transversely, while baffling walls, about 1 centimetre high, run longitudinally along the bottom of the cell, forming mercury baths, through which the mercury flows in zig-zag fashion. Cups are provided beneath the transverse partition, so as to allow the mercury to flow from end to end. In one compartment a solution of salt is electrolysed over the mercury with carbon electrodes; in the other, the mercury and sodium amalgam is decomposed by water, assisted by iron electrodes in electrical connection with the mercury. There are a number of "points" in the cell, which are described in detail in the specification, and illustrated by six figures.

A Process for the Rapid Oxidation of Drying Oils and their Fatty Acids by Mixing and Airing the same with Pulverised Substances for the Preparation of Linoleum and Cork Sheeting. Dr. J. Hertkorn, 29, Kalvinstrasse, Berlin. Eng. Pat. 7,219. March 25, 1898.

The usual charge of resin, resinate of magnesia, gum, linseed oil, cork meal, and ochre is placed in a reservoir and heated to 70° C. Successive quantities are then drawn off into the mixer, in which is a hollow shaft carrying perforated mixing blades. Through this shaft and the blades, hot air heated to about 70° C. is forced into the mass. At first, the agitator should make about 40 revolutions per minute, but the speed is reduced towards the end of the process, and cold air is blown in instead of hot, this change being effected automatically by electrically-controlled valves. A certain amount of alkaline earth is also incorporated at this stage to prevent spontaneous combustion. There is one figure.

An Improved Process for Producing Pure Acetic Acid. F. J. Bergmann, 5, Möhnestrasse Neheim a/Ruhr, Germany. Eng Pat. 5,976. March 18, 1899.

A solution of calcium chloride of at least 60° Bé is added to a ley of acetate of lime, testing 14° Bé as a minimum. The mixed solutions are then concentrated until the double salt, which is formed, will crystallise out and yield a magma on cooling. The lye, entrailed in the magma, is removed in a centrifugal, taking with it the bulk of the impurities. The resulting salt is then distilled with hydrochloric acid.

Improvements in the Manufacture of Copal Varnish, and other like Varnishes, and Solvents applicable therefor. S. Banner. 8, Fazakerley-street, Liverpool. Eng. Pat. 9,028. April 29, 1899.

The copal asphalt is heated with linseed oil in the usual way, and then cooled to about 258° F., which can be done without its solidifying. A hydrocarbon oil boiling above this temperature is then added, and the whole cooled to atmospheric temperature. A mixture of high and low boiling paraffins, olefines, and sometimes terpines are then added to the extent of about 30 per cent. of the weight of the gums originally employed. A quick-drying solvent is thus obtained, which contains hydrocarbons flashing below the Government test, but which in the aggregate gives a test above the required standard.

An Improvement in the Manufacture of Hydraulic Cement. J. Steiger 24, Finsbury-square, London. Eng. Pat. 18,654. August 31, 1898.

Calcined magnesite is the basis of the cement with which ground slag, slag wool, scoria, and other silicates are mixed in suitable proportions. The mixture can be used either direct or after previous calcination.

Reports of Companies.

THE CANADA PETROLEUM OIL CO, LIMITED.

The statutory meeting of the Canada Petroleum Oil Company was held in the Chartered Accountants' Rooms, King-street, Manchester, on Wednesday, Sir William Bailey, presiding. There was a large attendance. The Chairman having explained that the meeting was purely a formal one, said that the directors had obtained an independent expert opinion as to the value of the property. This report showed that if handled in a practical way the oil field would develop into a paying and successful property.

Mr. Walter G. Bagnall, managing director of the company, who has recently visited Canada, gave a report with regard to the properties of the company. He said that oil had been continuously found on lands extending between 24 and 25 miles. Most of the wells had produced considerable quantities of oil, and hundreds of barrels of oil were lying about. It was considered that at least 2,000 barrels had been lost from two of the wells before they were controlled. They were decidedly of opinion that the property would prove a successful oil-producing country, and that they would have ready for export a cargo of refined petroleum products within the next nine months. Being thoroughly satisfied that the oil was of excellent quality, and that it was there in large quantities, it had been arranged that pipe lines should be laid and the refineries erected. The municipalities had granted powers free of charge for laying the pipe lines from the properties through the settled districts to the harbour at Gaspe, and the lines would be complete within the next three months. New wells had been started, and the foundations of others were about to be laid along the oil-bearing line. They would be able to take the oil from the wells through the pipe lines to the refineries and tankages, and ship it from the port at Gaspe at a cost, including the refining of the product, of less than three-eighths of a penny per gallon. Contracts had been placed on favourabl terms, and the total cost of the works would not exceed 50 per cent of the amount it had originally been decided was necessary to be spent upon these erections. The Canadian Government had this session voted subsidies for the construction of the railway from Gaspe to Paspebiac, passing through the oil properties, and giving an outlet for their products to all parts of Canada and the United States. The Government had also decided to erect wharves and harbour facilities at Paspebiac, the ocean port of the Atlantic and Lake Superior Railway Company. This company possessed the line connecting the oil properties and the proposed new railway with the Inter-Colonial and Grand Trunk Railways. He was convinced that the future of the company would be a successful one.

Mr. Bagnall, in conclusion, said that he was glad to know that so many Lancashire men were supporters of the company, because throughout the whole of Canada he noticed the present prosperity of the Dominion had been substantially advanced by the business capability, commercial organisation, and capital of companies directly connected with Manchester and its Ship Canal.

In answer to questions Mr. Bagnall explained that it would be more profitable at present to sell the oil in Canada than bring it to Manchester. When, however, they did bring it up the Ship Canal they could deliver at £1. per ton cheaper than from any other part of the world.

The shareholders expressed themselves as well satisfied, and the meeting closed.

DIVIDEND.

JEYES' SANITARY COMPOUNDS, LTD.—The directors have declared an interim dividend at the rate of 10 per cent. per annum for the six months ended June 30.

PERSONAL.—We learn that *Mr. Arthur B. Storey*, 11, Tudor-street, Riverside, Cardiff, will in future represent Messrs. Thomas Hedley and Co., Ltd., soap manufacturers, Newcastle-on-Tyne, in Cardiff and the South Wales district. Mr. George R. Cowl, 18, Belvior-street, Hull, is now representing the same firm in Hull and the surrounding district.—*Messrs. George Scott and Son*, of London and Liverpool, advise us that the partnership hitherto existing between Mr. Frank W. Scott and Mr. Ernest G. Scott has been dissolved, and that this business will in the future be carried on at 44, Christian-street, London, by Mr. Frank W. Scott, the senior member of the firm.

Legal Intelligence.

SUPREME COURT OF JUDICATURE.

COURT OF APPEAL.

(Before the Master of the Rolls, President of the Probate Division, and Lord Justice Romer).

OATES *v.* POTTER AND COMPANY, LIMITED.

This case was an appeal of the plaintiff from an order of the Vice Chancellor of the County Palatine of Lancaster (Manchester district), dated May 8, last, refusing inspection of the defendants' premises and of the processes of manufacture in those premises. It appeared from the statement of Mr. Haldane, Q.C., who appeared in support of the appeal, that the plaintiff succeeded some time ago to what was formerly a residential estate, known as D'Arcy Lever Old Hall Estate, near Bolton, but which was now a dairy farm. The defendants were large chemical manufacturers, who had largely increased their business of recent years. The plaintiff brought his action in respect of a nuisance and damage to his property by reason of the defendants having, it was said, emitted and allowed to escape from their works noxious fumes and vapours, and also by reason of the defendants having deposited on the land forming part of their works heaps of chemical refuse, which were in a state of perpetual combustion. The defendants denied the emission of the fumes and vapours as alleged by the plaintiff, and denied also that the chemical refuse heaps deposited on their land were in a state of perpetual combustion, or that the plaintiff's property had been damaged in the way suggested.

After some discussion it was arranged by consent that the plaintiff should have inspection of the defendants' premises to ascertain the nature of the fumes emitted from the works, and to inspect and take samples of the chemical refuse heaps on the defendants' land. It was also arranged that the defendants should have inspection of the farm to see what damage (if any) had been done.

HIGH COURT OF JUSTICE.

QUEEN'S BENCH DIVISION.

(Before Mr. Justice Ridley without a jury.)

CAMPBELL *v.* LEVINSTEIN.

The plaintiffs are a firm carrying on business in New York, and the defendants are manufacturers of dyes, having their works and offices at Manchester. Plaintiff claimed to recover the sum of £1,796, being damages for alleged breach of contract by which the defendants guaranteed to indemnify plaintiffs in respect of any lawsuit that might be brought against them, and infringement of patent by the sale in the United States of naphthol black. It appeared from the opening statement of counsel that in 1890 the plaintiff made proposals to Mr. Ivan Levinstein, now managing director of the defendant company at Manchester, for the sale of their naphthol black in the United States. The plaintiff agreed to purchase, and did purchase, large quantities on the understanding, partly verbal and partly in writing, that they should be indemnified against any action for the infringement of patent by reason of the defendants' manufacture being sold by plaintiffs in the States. An action for infringement was brought by a Mr. W. J Matheson, the assignee of a patent granted by Cassella and Co. to him, and the case was heard in New York. The judgment was in favour of the plaintiff in that case by reason of an infringement, and the plaintiffs in the present action appealed, with the result that on the appeal judgment was given in their favour. Plaintiffs claimed the costs incurred up to and including the appeal, but admitted that £669. due for goods sold and delivered should be deducted. The defendants admitted the guarantee, but said that due notice was given not to proceed with the appeal, and that they were prepared to pay all costs up to it. They also counter-claimed for £669. According to the plaintiffs' contention, the successful appeal saved something like £14,000., but this defendants denied.

Defendants pleaded that they were willing to pay costs up to the judgment, and that they gave notice to plaintiffs not to proceed with the appeal. Mr. Robson, Q.C., and Mr. Spokes appeared for the plaintiff, and Mr. Fletcher Moulton, Q.C., and Mr. Walters appeared for the defendants. Evidence was called on the part of the defendants to prove the nature of the contract, and the position taken up by them in reference to the litigation in America.

His Lordship, in giving judgment, said the plaintiff was entitled to recover the costs of the appeal in America, but that he was not entitled to recover costs in respect to frivolous and vexatious points taken by him Judgment would be for the plaintiff upon those terms.

The counter-claim was not disputed. His Lordship made an order for inquiry as to damages, and granted a stay with the object of an appeal being brought.

Parliamentary Jottings.

THE ALDERSHOT SEWAGE FARM.

In the House of Commons, last week, Mr. Jeffreys (Hampshire, Basingstoke) asked the Under-Secretary to the War Office whether he could give a return of the trading profit and loss account and balance sheet for the preceding year of the Camp Sewage Farm at Aldershot; whether he was aware that the milk had to be sold at a lower price than other milk in the same district on account of the proximity of the sewage outfalls; whether the War Office had been obliged to expend the sum of £3.300. during the last year on the drainage and buildings of this farm; and whether it was intended to spend more money on endeavouring to turn this sewage farm into a dairy farm for the purposes of selling milk.

Mr Wyndham (Dover): There was a small loss on the farm account of last year, but the farm nevertheless fulfilled economically the purpose for which it was established—namely, the disposal of the camp sewage—capital outlay as well as current expenses being taken into account. In view of the recent report of Dr. Andrewes, confirmed, as it has since been, by observations of the medical officer of health for the county, it has been decided to continue the farm as at present constituted and to keep a close watch on the conditions which manifest themselves. So far no nuisance or danger to health has presented itself, even under the trying conditions which have prevailed during the exceptionally hot weather of the last few weeks. Directions have been given that the milk from the farm is not to be sold below the current rates of the district.

STATE OF THE THAMES

On Tuesday, Mr. Coghill (Stoke-upon-Trent) asked the President of the Local Government Board a question as to the foul condition of the River Thames between London and Purfleet.

Mr. T. W. Russell (Tyrone, South): My right hon. friend has communicated with the Conservators of the River Thames on this subject, and he is informed that the only specific complaint they have received related to the condition of the river on July 21st, when the harbour master reported that the water was black, with an unpleasant odour, at Jenningtree Point, the discoloration being traceable to the metropolitan main drainage outfall. The outfall works are under the control of the London County Council, and the conservators have brought the report under the notice of the Council. The conservators further state that inquiries have been made by their officers on the river as to the recent condition of the water, and they report that during the past week or two the condition of the water has not been satisfactory. They consider this due in some measure to the hot weather, but are of opinion that the river water in the neighbourhood of Crossness has recently been affected by the discharge from the main drainage outfall. The attention of the London County Council will be called to the matter.

SHEEP DIPS IN CHILI.

THERE is a good demand for Sheep dip in Chili. In the south near the Straits of Magellan, owing to the prevalence of scab and the absence of any regulations for the prevention of this disease large quantities of sheep dip are used. All classes of dip are used, both fluid, powder, and paste, and that at Punta Arenas most of the well-known brands can be purchased at prices that compare favourably with Buenos Ayres quotations. The fluid dips are generally classed as non-poisonous, the active agent being taracids. The powder dips are poisonous, being arsenical preparations Paste dips are usually a combination of the ingredients contained in the fluid and powder dips, and, therefore, are classed as poisonous Six out of the seven principal brands of sheep dip in use in the Punta Arenas district are British. The seventh is manufactured by a Scotch firm at their factory in Virginia, United States. The total value of sheep dips imported in this district during 1898 is estimated at from £12,000 to £15,000. In the Talcahuano district the sale of sheep dip has never been pushed until quite recently. A Doncaster firm has all its pamphlets and testimonials in good Spanish, a very cheering sign.

In the district of Traiguen sheep dips are only now being introduced. Hitherto the method of curing sheep-scab has been to use paraffin alone, or a very strong tobacco water. The scab (acarus scabies) is very prevalent at Traiguen, and should any valuable remedy be introduced it would lead to considerable pecuniary results.

Oil Fire near Accrington.—Early on Tuesday morning a chemist's shop in Henry-street, Church, occupied by Mr. John Chadwick, was destroyed by fire. The fire is supposed to have had its origin in one of a number of barrels of oil stored in the back premises. The Accrington fire brigade rendered prompt assistance, but the roof fell in soon after their arrival. The damage is estimated at from £800. to £1,000.

Varnish—
Amsterdam, 3 cks. W. Swanston & Sons

Wood Pulp—
Arendal, 400 bls. P. H. Matthiessen & Co.
Christiania, 160 "
Gothenburg, 17 pks.
Rotterdam, 117 bls. Tyne S. S. Co.

GOOLE.

Week ending July 12th.

Barytes—
Antwerp, 170 bgs.

Caoutchouc—
Boulogne, 10 cks.
Hamburg, 1 cs.

Coal Products—
Alizarine
Rotterdam, 47 brls.

Colours—
Hamburg, 23 cks, 30 cs.

Dyestuffs *(otherwise undescribed)*
Amsterdam, 2 cks.
Boulogne, 81 4 cs 63 pks.
Rotterdam, 311 49

Farina—
Delfszyhl, 400 bgs.

Glucose—
Hamburg, 20 cks.

Glue—
Hamburg, 1 ck.
Rotterdam, 60 bgs.

Oxalic Acid—
Hamburg, 5 cks.

Phosphates—
Dunkirk, 80 t.
Ghent, 80

Potash—
Dunkirk, 56 dms.
Hamburg, 51

Pyrites—
Huelva, 1,190 t.

Saltpetre—
Hamburg, 69 cks.
Rotterdam, 100 bgs.

Starch—
Ghent, 192 cs.

Waste Salt—
Hamburg, { 880 t. / 496 bgs. / 51 cks.

Wood Pulp—
Christiania, 4,176 bs.

GRIMSBY.

Week ending July 15th.

Alkali—
Hamburg, 2 cs.

Caoutchouc—
Rotterdam, 1 cs.

Chemicals *(otherwise undescribed)*
Hamburg, 42 cks 8 pks.

Colours—
Antwerp, 16 cks. 1 cs. 112 pks.
Hamburg, 54 1 108
Rotterdam, { 5 / 100 bgs. 3

Dyestuffs—
Extract
Hamburg, 2 cs.

Farina—
Hamburg, 80 bgs.

Ferro Chrome—
Antwerp, 40 cs.

Salt—
St. Ubes, 1,000 t.

Wolfram Ore—
Hamburg, 11 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending July 19th

Alkali—
Pt. Elizabeth, 60 t. 3 c. £331

Ammonia—
Hamburg, 16 c. £37
Perth, 22 pks. 12

Ammonia (Anhydrous)—
Cologne, 50 cylders. £42
Dusseldorf, 18 44

Ammonium Carbonate—
Amsterdam, 1 t. £31
Antwerp, 5 10 c. 130
Bahia, 1 40
B. Ayres, 1 23

Ammonium Sulphate—
Antigua, 25 t. £37
Antwerp, 42 49
Barbadoes, 125 3 c. 1,599
Bremen, 73 884
Stettin, 51 625

Arsenic—
B. Ayres, 2 c £43
Karachi, 10 6 bbl. 33
Sydney, 2c dms. 21

Boracic Acid—
Bombay, 1 t. £25
Melbourne, 1 24

Borax—
Sydney, 13 c £12

Carbonic Acid Gas—
Channel Is., 81 tubes. £30
Rotterdam, 3 cylders. 15

Caustic Potash—
Lyttelton, 21 t. 13 c. £75

Caustic Soda—
Canterbury, 4 c £11
Cape Town, 15 11
Pt. Elizabeth, 3 t. 11 71
Townsville, 1 6

Chemicals *(otherwise undescribed)*
Adelaide, 2 cs. £43
Amsterdam, 10 kgs. 52
Antwerp, 26 cks. 1 c pks. 56
Auckland, 10 3 35
Bombay, 3 10
Boulogne, 7 64
Brussels 20 kgs. 2 179
Copenhagen, 10 cks. 8
Durban, 1 8 98
Halifax, 10 31
Hamburg, { 16 / 12 kgs. 31
Karachi, 3 25
Melbourne, 50 63
Montreal, 4 cks. 50
New York, 12 46
Perth 10 15
Pt. Elizabeth, 18 47
Rotterdam, 10 kgs. 69
Singapore, 400 3
Sydney, 4 86
Toronto, 5 44
Zanzibar, 3 37

Citric Acid—
Bombay, { 2 cs. / 8 c. £76
Danzig, 1 ck. 44
Dunedin, 2 13
Hamburg, 10 65
Perth, 1 9
Melbourne, 20 kgs. 153
Rotterdam, 1 7
St. Petersburg, 5 44
Sydney, 2 18
Townsville, 1 8

Coal Products—
Alizarine
Boston, 17 cks. £175
Aniline Dyes
Calcutta, 4 brls. £30
Dunedin, 5 cs. 97
Melbourne, 1 23
Anthracene
Cologne, 240 cks. £342
Benzol
Boulogne, 75 cks. £148
Rotterdam, 30 106
Stockholm, 4 dms. 50
Carbolic Acid
Bombay, 26 cks. 2 cs 4 dms. £36
Boulogne, 67 600
Coal Tar Dyes
Calcutta, 9 kgs. £130
Creosote
Dieppe, 23 500 galls. £123
Naphtha
Dunedin, 70 dms. £29
Naphthaline
Rotterdam, 100 bgs. £57
Pitch
Antwerp, 250 t. £275
Gibraltar, 7 cks. 5
Hamburg, 2 brls. 5
Helsingfors, 225 t. 279
Raumo, 375 469
Sydney, 5 7
Tar
Delagoa Bay, 90 dms. £10
Durban, 100 12
Helsingfors, 1,450 cks. 860
Raumo, 1,100 674
St. John's, Nfd, 20 brls. 17
Trinidad, 12 rnlts. 9
Tar Oil
Bremen, 5 cks. £13
Gothenburg, 500 369

Copper Sulphate—
B. Ayres, 1 c. £25
Pt. Elizabeth, 11 20 fkns. 28

Cream of Tartar—
Hobart, 15 kgs. £59
Nelson, 20 cs 69
Pt. Elizabeth, 3 c. 14
Wanganui, 4 15

Disinfectants—
Cape Town, { 40 cks. / 20 kgs. £26
Chinde, 1 t. 16 c 48
Delagoa Bay, 22 pks. 18
Jamaica, 16 dms. 18
Lyttelton, 5 cs. 14
Penang, 100 54
Seville, 106 pks. 67
Sydney, 17 39

Glycerine—
New York, 60 t. 1 c. £1,620

Guano—
Durban, 5 t. 19 c. £60

Manure—
Antigua, 20 t. £96
Barbadoes, 106 12 c. 975
Berbice, 25 240
Christchurch, 200 613
Colombo, 20 150
Landerneau, 105 840
Malaga, 50 14 400
Sables d'Olonne, 70 1 355

Pearl Ashes—
Cape Town, 11 c. £8

Potassium Bichromate—
Dunedin, 21 t. 5 c. £445
Lyttelton, 1 2 33

Potassium Cyanide—
Adelaide, 2 t. £250
Fremantle, 17 9 c. 1,660
La Paz, 200 cs. 1,120
Mackay, 40 480
Normanton, 10 120
Townsville, 10 1,250

Potassium Prussiate—
Yokohama, 1 t. £71

Saltpetre—
Madeira, 8 c. £10
Sydney, 21 t. 7 197

Sheep Dip—
B. Ayres, 16 t £930
Cape Town, 100 dms. 20
Durban, 19 c. 33
Hobart, 1 12 48
Lyttelton, 1 cs. 3 bxs. 23
M. Video, 13 17 c. 312
New York, 11 cks. 15
Pt. Elizabeth, 20 120

Soda—
Cape Town, 18 t. 9 c. £57
Pt. Said, 1 2 6
Zanzibar, 1 5 9

Soda Crystals—
Cape Town, 31 t. 10 c. £10

Sodium Bicarbonate—
Trinidad, 12 c. £5

Sodium Hyposulphate—
Dunedin, 2 t. £15

Sulphur—
Cape Town, 4 t. 18 c. £4
Colombo, 10 5
E. London, 130 pks. 51
Pt. Elizabeth, 2 5 1

Sulphuric Acid—
Colombo, 13 cs. £16
Trinidad, 21 t. 1 c. 10

Superphosphates—
Riga, 300 t. £750

Tartaric Acid—
Boulogne, 5 c. £29
Townsville, 2 14

LIVERPOOL

Week ending July 19th.

Acetic Acid—
Vera Cruz, 6 c. £6

Alum—
Philadelphia, 25 cks. £70

Ammonium Carbonate—
Copenhagen, 2 t. £55
Vera Cruz, 11 c. 19

Ammonium Sulphate—
Genoa, 1 t. £12
Gd. Canary, 10 120
Las Palmas, 25 4 c. 308
New York, 76 935
Philadelphia, 51 2 650
Samarang, 77 2 q. 831
Shanghai, 2 16
Sourabaya, 66 8 1 7,411

Arsenic—
Ceara, 4 c. £6

Basic Slag—
Le Boucan, 851 t. 4 c. 34 £1,276

Bleaching Powder—
Amsterdam, 17 cks.
Bilbao, 42
Boston, 242
Calcutta, 150 cs.
Christiania, 15
Ghent, 71
Montreal, 22
Nantes, 23
New York, 25 25 brls.
Rotterdam, 7
Rouen, 13
Tampico, 9

Boracic Acid—
Melbourne, 1 t. £25

Borax—
E. London, 91 t. £433
Hamburg, 5 7 c. 50
Havana, 16 7 50
Messina, 1 15
Santander, 3 2 14
Vera Cruz, 2 30

Calcium Carbide—
Valparaiso, 5 c. £10

Calcium Chloride—
Melbourne, 10 t. £21

Castor Oil—
Panama, 50 cs.

Caustic Potash—
Rotterdam, 41 t. 19 c. £140

Caustic Soda—
Amsterdam, 92 dms.
Barcelona, 15
Bombay, 35
Boston, 50 brls.
Cardenas, 8
Ciudad Bolivar, 20
Colombo, 11 bxs.
Copenhagen, 62
E London, 3 cs
Galatz, 51
Genoa, 30
Ghent, 17
Hamburg, 19 1
Hiogo, 337
Hong Kong, 3 cks.
Kingston, Ja., 10
Limassol, 5
Lisbon, 40
Malaga, 10
Marseilles, 20
Mauritius, 31
Melbourne, 61
Monterey, 84
Montreal, 4
New York, 50
Pasages, 150
Pt. Natal, 11 t. 7 c.
Rangoon, 35
Rio de Janeiro, 50
Rotterdam, 63
Rouen, 118
San Juan, 8

feature in this trade is the starting of a special department for the manufacture of tyres. The factory appears to have gained a footing, not only in Germany, but also abroad.

The *bone-ash* trade has not picked up as was hoped; in fact, it is more handicapped than ever. Only a few cargoes reached Harburg, totalling 2,450 tons.

The trade in *China clay* has undergone no alteration. The annual imports kept pace with the previous years, amounting to 15,497 tons.

General Chemicals.—The following were the chief imports in addition to the foregoing:—Phosphates, 5,627 tons; sulpur ore, 9,400 tons; manure, 703 tons; slags, 2,088 tons; tar, 2,184 tons; and pitch, 1,099 tons.

BREMEN.

British Trade.—The chief imports from the United Kingdom into Bremen during 1898 were:—drugs and chemicals, 3,208,321 marks; indiarubber, 2,541,710 marks; and oils, 200,778 marks. The exports were:—dry colours, 381,460 marks; starch, 1,184 711 marks; oil cakes, 1,520,070 marks. Among the totals for all countries we find cement about 56,700 tons imported and 32,142 tons exported. Manure 78,479 tons imported and 78,243 exported.

THE FERTILISING ADVANTAGES OF MONOCALCIC PHOSPHATE.

SOME recent experiments have been made by M. Jules Joffre with the white mustard plant, both in pure sand and in the same sand to which was added peat and carbonate of lime; and again by adding an excess of fertilising elements other than phosphoric acid.

The following are the results he obtained, being the mean of three successive sets of experiments. They are expressed by taking the weight of the yield without manure at 100, and comparing with this figure the weights obtained with the phosphates experimented on.

Experiments with pure sand:—

Without manure	100
Apatite from Logrosan	100
Tricalcic phosphate (bone ash)	150
Gelatinous tricalcic phosphate	246
Monocalcic phosphate	321

Experiments made with a mixture of pure sand, peat, and carbonate of lime:—

Without manure	100
Apatite from Logrosan	112
Tricalcic phosphate (bone-ash)	142
Gelantinous tricalcic phosphate	197
Monocalcic phosphate	359

As can be seen, apatite (fluophosphate) produces only an uncertain and very slight effect.

The addition of tricalcic phosphate in the state of bone-ash produces, on the contrary, a very marked effect.

We can thus understand that, according as the materials called "phosphates" in commerce, and which are used in agriculture after simply being ground, contain either apatite, or fluophosphate, or tricalcic phosphate, the fertilising power will be very different.

The action of tricalcic phosphate is especially noticeable when it is used in the gelatinous state, that is to say directly after precipitation.

But in spite of the great differences in my results, I do not think we ought to consider these two sorts of tricalcic phosphate as being in different molecular states. The more complete dissemination obtained with the material in the gelatinous state is quite sufficient to explain the larger returns obtained.

Now if we compare all these results with those given by monocalcic phosphate—that is to say, with phosphate soluble in water—we see that there is an enormous difference in its action on vegetation. This phosphate produces results altogether superior, and more especially higher than those obtained with tricalcic phosphate in the gelatinous state, with which we get such excellent dissemination.

We must conclude from this, that it is not only because the monocalcic phosphate is better disseminated that the action is improved, but also because it is in nature absorbed by plants which are able to assimilate it, once it has entered into their organisms. The new experiments I have just made again prove the advantage there is in furnishing plants with phosphates soluble in water.—*Bull. Soc. Chim.*

Obituary.—It is with much regret that we learn of the death of Mr. William Stiff, the senior partner of J. Stiff & Sons, chemical, etc., stoneware manufacturers. The business will continue to be carried on under the same style by the surviving partner of the original firm, Mr. Ebenezer Stiff, with the assistance of the three junior members of the firm, Messrs. Sydney J., James A. and W. Frederick Stiff.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

AT the Manchester City Police Court on Tuesday, Mr. Headlam resumed the hearing of the charge preferred by the Manchester Corporation Sanitary Department against Messrs. Hardman & Holden, chemical manufacturers, Miles Platting, of causing a public nuisance by allowing noxious fumes to escape from their works. Mr. Rhodes, barrister, again appeared in support of the summonses, and the defendants were represented by Mr. Sutton, barrister.—The Rev. Benjamin Reed, rector of St. Luke's, Miles Platting, was called in continuation of the case for the defendants. St. Luke's schools, he said, were only 300 yards from the works, and he had not discovered that any inconvenience was suffered. A large number of children attended the schools, and he had not found that their health had been impaired by chemical fumes.

Mr. J. Craven, chief chemist to the defendants, said that he had charge of the various chemical operations, and they were conducted with due regard to the avoidance of anything approaching a nuisance. Sulphuretted hydrogen was a valuable product, and it was part of his duty to see that it was not wasted. He remembered Dr. Niven, the medical officer of health, complaining about eighteen months ago of a slight smell of pyridine. That was due to the fact that they were moving some of the plant, and that the fumes escaped through a broken glass door. With the exception of surface drains none of the drains from the works were connected with the Vickers-street sewer which was complained about.—In cross-examination, witness said that he remembered an explosion in one of their drains last October, but he could not account for it. He admitted that the paint and woodwork in the vicinity of the works was discoloured. This would arise from the escape of sulphuretted hydrogen up the chimney. Since the report of Dr. Bailey in 1891, a number of improvements had been carried out at the works. Witness had paid many surprise visits to the works during the night, and on one occasion only did he discover any carelessness. In that case it was not sufficient to cause a nuisance.—Re-examined by Mr. Sutton the witness emphatically denied that sufficient sulphuretted hydrogen was given off from the works to cause such a nuisance as had been described. The paint might be discoloured, but one in a million parts would cause that.

Dr. G. H. Bailey said that in 1891 and 1892 he was asked by the Corporation to inspect the defendants' works in conjunction with Mr. Estcourt, the city analyst. He made a report, which embodied a number of suggestions, and on subsequent visits he found that these suggestions had been carried out, thus lessening the possibility of any nuisance being created. He did not agree that the smell of pyridine was disagreeable; in fact, he did not think it was unpleasant. It was absolutely impossible for the defendants to deliver the sulphuretted hydrogen into the sewers or the atmosphere even if they tried, unless someone was guilty of gross negligence. He could not conceive of a nuisance arising from the defendants' works. All his visits had been of the nature of surprise visits, and he had never found anything which could give rise to the serious complaints which had been made. Recently he had been round the works, and could not find anything which could be improved upon. In his opinion, the defendants had used the best practical means for abating any nuisance, or preventing the escape of noxious effluvia.

Mr. Estcourt, the city analyst, said that he was perfectly familiar with the plant at the defendants' works, and had experience of similar works elsewhere. There was nothing which could be added to the appliances to make them more efficient.—In answer to Mr. Rhodes, the witness said that an accident or carelessness on the part of the workmen might at times cause a nuisance.

Mr. Herbert Porter, an Inspector under the Alkali Works, &c., Acts, stated that in the Miles Platting district he had 20 tar and about 40 ammonia works on his list. He considered that the defendants' works were up to date, and that their appliances were the best that could be employed for preventing a nuisance.—By Mr. Rhodes: He admitted that pyridine might be disagreeable to some people, but it was his experience that every unknown smell was considered to be more disagreeable than a smell which was known. Further, he had found that every unpleasant and unknown smell was called sulphuretted hydrogen by the people in the district.

This completed the case for the defendants.

Mr. Sutton submitted that unless it had been proved that the defendants had not taken the best practicable means for preventing a nuisance there was no case against the defendants.

Mr. Rhodes replied that the burden of proof rested upon the defendants, who were obliged to show that they had taken the best practicable means for abating the nuisance, or for preventing or counteracting the effluvia.

Mr. Headlam deferred his decision until after he had heard the cases against the Manchester Oxide Company, Messrs. Hamor Lockwood and Company, and the Holt Town Works of the Manchester Corporation, the hearing of which he adjourned until the 29th inst.

Toluol
Germany, 8 dms.
Copperas—
Mohammerah, 60 brls.
Dyestuffs *(otherwise undescribed)*
Norway, 27 cks.
Dyestuffs—
Extract
France, 2 cs.
Farina—
Holland, 40 sks.
Glue—
Germany, 22 cks.
Holland, 19
Glycerine—
France, 20 dms.
Manure—
Sweden, 81 bxs.
Paraffin Wax—
Holland, 9 cs.
Soap—
Holland, 50 cs.
Sodium Naphthionate—
Germany, 25 cks.
Tallow—
Bombay, 60 brls.
Germany, 27 cks.
Varnish—
Bombay, 52 dms.
Zinc Chloride—
Bombay, 33 cks.
Germany, 6
Holland, 1

HULL.

Week ending July 15th.

Alkali—
Bergen, 5 cks.
Riga, 100
Trieste, 8
Ammonium Sulphate—
Hamburg, 400 bgs.
Palermo, 99
Stettin, 140
Basic Slag—
Abo, 2,032 bgs.
Riga, 3,110
Bleaching Powder—
Konigsberg, 16 cks.
Caustic Soda—
New York, 200 dms.
Chemicals *(otherwise undescribed)*
Amsterdam, 25 cks.
Antwerp, 1 17 pks.
Copenhagen, 3
Danzig, 8
Genoa, 20
Gothenburg, 1 5 cs.
Hamburg, 10
Marseilles, 19
New York, 147
Naples, 1 1
Palermo, 1
Reval, 21
Riga, 27
Rotterdam, 23 61
St. Petersburg, 50 6 1
Uleaborg, 4
Wasa, 4
Coal Products—
Creosote
Bergen, 5 cks.
Boston, 170
Pitch
Antwerp, 5 t.
Riga, 6 cks.
Tar
Antwerp, 4 cks
Dunkirk, 30
Drontheim, 2
Hamburg, 3
Libau, 1
Rotterdam, 26
Wasa, 125
Cottonseed Oil—
Amsterdam, 11 t. 18 c.
Antwerp, 10 3
Bergen, 2
Bordeaux, 5 2
Christiansand, 7
Copenhagen, 1 14
Dunkirk, 1 16
Gothenburg, 5 18
Hamburg, 11 11
Harlingen, 2 1
Norkoping, 5 3
Rotterdam, 25 1
Stockholm, 7 13
Glue—
Drontheim, 3 bls.
New York, 52 cks.
Linseed Oil—
Abo, 15 t. 9 c.
Antwerp, 2 15
Christiania, 5 16
Christiansand, 1 15
Christiansund, 18
Copenhagen, 7
Drontheim, 1 1
Hamburg, 2 12
Rotterdam, 1 14
Rouen, 1 15
Venice, 3 10
Manure—
Antwerp, 10 cks.
Jersey, 1,150 bgs.
Paint—
Antwerp, 59 cks.
Painters' Colours—
Amsterdam, 17 cks. 10 dms.
Antwerp, 20 103 cs. 172 pks.
Bremen, 2
Boston, 100 dms.
Copenhagen, 13 4 1 pk.
Dunkirk, 6
Fiume, 3
Genoa, 16
Ghent, 24 dms.
Hamburg, 4 3
Harlingen, 3
Jersey, 1 2 pks.
Konigsberg, 35
Leghorn, 20
New York, 178 10 dms.
Rotterdam, 4 3
Rouen, 19
Stettin, 38 1
Stockholm, 1
Trieste, 1
Venice, 5
Soap—
Amsterdam, 50 cs.
Antwerp, 4
Christiania, 5
Starch—
Bergen, 1 cs.
Tallow—
Amsterdam, 10 cks.
Antwerp, 21
Libau, 25
Rouen, 69
Varnish—
Antwerp, 6 cks. 1 cs.
Bari, 2
Boston, 2
Christiania, 1
Copenhagen, 3
Palermo, 2
Stockholm, 2

GLASGOW.

Week ending July 20th.

Ammonium Sulphate—
Amsterdam, 263 t. 9 c.
Antigua, 7 6
Italy, 20 5
Philadelphia, 51 3 q.
Sicily, 11 3 3
Borax—
Amsterdam, £23
Rotterdam, 50
Castor Oil—
Sydney, £156 5s.
Coal Products—
Creosote
Bayonne, £4,039 10s.
Creosote Oil
Bergen, £10
Pitch
Canada, £364
Gothenburg, 326
Tar
Christiania, £59 10s.
Cyanide—
Taltal, £314
Gelatine—
Canada, £73
Lead Nitrate—
Italy, £22
Linseed Oil—
Canada, 4 t. 6 c. 3 q.
Kingston, 8 6
Sydney, 2 6 3
Litharge—
Amsterdam, £49
Manganese Oxide—
U.S.A., 10 t. 4 c.
Painters' Colours—
Durban, £126
Hobart, 41
Natal, 21
Sydney, 718
U.S.A., 359
Paraffin Wax—
Genoa, £147
Italy, 126
Sicily, 81
Potassium Bichromate—
Amsterdam, £305
Oporto, 50
Quebracho Extract—
Belgium, £40 14s.
Red Lead—
Amsterdam, £20
Canada, 3 t.
Salammoniac—
Italy, £118
Sheep Dip—
B. Ayres, £46
Soap—
Cape Colony, 8 t. 18 c. 2 q.
Durban, 4 8 1
St. John's, N'd., 1 2
Soap Lyes—
U.S.A., 17 t. 9 c.
Starch—
Rotterdam, £300
White Lead—
Amsterdam, £5

TYNE.

Week ending July 15th.

Alkali—
Amsterdam, 31 t. 3 c. 1 q.
Hamburg, 5 12
Riga, 53 9 3
Rotterdam, 5 18 2
St. Petersburg, 29 1 2
Ammonia—
Pomaron, 6 c. 2 q.
Ammonium Carbonate—
Halmstadt, 1 t.
Ammonium Sulphate—
Odense, 5 t.
Antimony—
Montreal, 8 t. 10 c.
Rotterdam, 3
St. Petersburg, 40
Barium Binoxide—
Rouen, 17 t. 18 c. 2 q.
Barium Carbonate—
Hamburg, 151 t. 10 c.
Rouen, 30 5
St. Petersburg, 56 10
Bleaching Powder—
Amsterdam, 24 t. 7 c. 2 q.
Bergen, 5 4 2
Christiania, 2
Hamburg, 10 4 3
Rotterdam, 11 6
St. Petersburg, 25 5 1
Borax—
Aalborg, 1 t. 1 c. 3 q.
Castor Oil—
Montreal, 11 t. 14 c. 3 q.
Caustic Soda—
Abo, 9 c. 1 q.
Antwerp, 10 t. 3
Christiania, 1 5
Copenhagen, 8 16 2
Hamburg, 10 10
Rouen, 5 1
Seville, 66 2 3
Stockholm, 15 1 3
Venice, 32 7 2
Coal Products—
Carbolic Acid
Rotterdam, 5 t. 16 c. 3 q.
Hydrochloric Acid—
Pomaron, 18 c.
Linseed Oil—
Pomaron, 6 c. 1 q
Litharge—
Amsterdam, 1 t. 2 c. 2 q.
Antwerp, 2 14 2
Flensburg, 5 3
Riga, 16 1
Magnesia—
Antwerp, 9 c.
Barcelona, 6 t. 17 3 q.
Hamburg, 3 5 3
St. Petersburg, 12 2
Manure—
Barcelona, 8 t. 11 c. 2 q.
Nitric Acid—
Pomaron, 5 c. 2 q.
Orange Lead—
Barcelona, 10 c.
Paint—
Amsterdam, 1 t. 5 c.
Antwerp, 1
Bergen, 9 1 q.
Copenhagen, 1
Hamburg, 2
Painters' Colours—
Antwerp, 2 c.
Christiania, 1 1 q.
Hamburg, 5 cks.
Pyridine—
Hamburg, 12 c.
Red Lead—
Amsterdam, 11 t. 1 c. 1 q.
Copenhagen, 1 8 2
Flensburg, 5 7 3
Hamburg, 8 14
Montreal, 2 18 3
Riga, 12
Ronne, 1 13
Rotterdam, 1 13 2
St. Petersburg, 13 14 2
Stockholm, 3 17 3
Salt—
Abo, 25 t.
Soda—
Amsterdam, 20 t.
Christiania, 8 14 c.
Rotterdam, 35 7 1 q.
Soda Ash—
Bergen, 10 t.
Hamburg, 9 16 c. 3 q.
Rotterdam, 1 6 2
Sodium Bicarbonate—
Christiania, 2 t.
Sodium Hyposulphite—
Hamburg, 11 t. 1 c. 1 q.
Sodium Prussiate—
St. Petersburg, 5 t. 2 c. 1 q.
Sulphuric Acid—
Pomaron, 1 c. 3 q.
Tallow—
Rotterdam, 5 t. 10 c. 3 q.
Varnish—
Pomaron, 2 q.
White Lead—
Montreal, 59 t. 11 c. 2 q.
Pomaron, 1 2 1

GOOLE.

Week ending July 12th.

Chemicals *(otherwise undescribed)*
Amsterdam, 20 cks.
Hamburg, 16 pks
Rotterdam, 5 dms.
Coal Products *(otherwise undes.)*—
Amsterdam, 100 cks.
Antwerp, 12 1 cs.
Boulogne, { 40 7 pks. 2 dms.
Ghent, 1
Rotterdam, 100
Dyestuffs *(otherwise undescribed)*
Antwerp, 10 cks.
Hamburg, 4 1 cs.
Manure—
Rotterdam, 194 bgs.
Painters' Colours—
Ghent, 4 cks. 3 pks.

GRIMSBY.

Week ending July 15th.

Alkali—
Dieppe, 1 ck.
Caoutchouc—
Malmo, 1 cs.
Coal Products *(otherwise undes.)*—
Dieppe, { 1 kg. 180 cks.
Hamburg, 3 pks.
Manure—
Hamburg, 2,001 bgs.
Painters' Colours—
Antwerp, 32 kgs. 1 cs.
Hamburg, 3 cks. 11 pks.
Rotterdam, 3 brls.

Midland Manufacturers and Acid Waste.—On the invitation of the Sanitary Committee of the Staffordshire County Council a conference of representatives of South Staffordshire Rural and Urban District Councils has been held for the purpose of considering what action should be taken to prevent the pollution of the sewers and local streams by waste acids used in connection with the galvanising and other trades in the Midlands. The conference was held in the Council House, under the presidency of Mr. W. J. Bagnall (chairman of the committee); and there were also present Dr. Reed (county medical officer) and Mr. M. F. Blakeston (clerk to the Council), and the following rural and urban district councils sent representatives: Wolverhampton, Smethwick, Brierley Hill, Darlaston, Lyston, Bilston, Kingswinford, West Bromwich, and Coseley. The Birmingham Tame and Rea Drainage Board were also represented. On the motion of Mr. W. Bassano (Rowley Regis), seconded by Mr. C. H. Barrow (Tipton), it was resolved, "That, while no local authority would wish to take any measures which will be detrimental to the trade of the district the members present at this conference are convinced that under no circumstances should untreated acid waste be permitted to enter sewers or streams." It was also decided, on the proposition of Mr. C. Chambers (Kingswinford), seconded by Mr. J. Corbett (Darlaston), "That the foregoing be communicated to the manufacturers affected, and that they be invited to appoint representatives to confer with the combined local authorities." Eventually the conference was adjourned to a date to be fixed by the chairman.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols keep steady, and are in better request at last quotations Carbolic acids are firm and steady, but prices are unaltered, except for liquid, which is 1d up. Naphthas keep firm, and are in fair request. Creosote is scarce and dear. Pitch is very firm, and worth fully 33s. 6d. f.o b. East Coast.

Sulphate of ammonia shows more activity now that prices for forward are rather easier. Beckton now quotes £11. 15s. for next spring. For prompt prices remain at about the same level as last week, but the demand is brisker. London outside makes are quoted £12. 2s. 6d.; Hull, £12.; and Leith, £12. 1s. 3d. to £12. 2s. 6d. Nitrate of soda 7s. 9d. per cwt. and refined 8s. per cwt.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade business generally is good and prices have an upward tendency. Caustic soda is firm at the advance and a considerable amount of business is reported at the increased prices. In bleaching powder an advance of 10s. per ton has been made, the quotation being now £4. 15s. per ton, f.o.r. makers' works for home trade, and f o.b Liverpool £5. 5s. per ton. Chlorates are still without change at 3½d. and 3¾d. per lb. for potash and soda respectively. Alkali 58% is firm at £3. 17s. 6d. per ton, bags, free on rails. Soda crystals and bicarbonate are without alteration in value. Sulphate of copper is rather lower at £24. 10s. prompt, and £24 5s. for forward delivery; f.o.b. Saltcake is still somewhat irregular, but only limited quantities are offered and price is inclined to be firmer at 23s. to 24s. per ton, f.o.r. Sulphur is steady at £4. 12s. 6d. For vitriol and muriatic acid there is a good steady demand and prices are unaltered. Brown acetate of lime is rather steadier at £4 17s. 6d. to £5 per ton c.i.f. Acetate of soda, £13. per ton. White sugar of lead dull at £22; other lead salts firm. Borax and boracic acid are maintained at £16. and £26. per ton respectively. Arsenic is slighter easier at £18. 15s. to £19. per ton. Nitrate of soda is held firm for 7s. 9d. per cwt. Prussiates of potash and soda are in continued good demand at 6d. and 7¾d. per lb. Sulphocyanides quiet. Green copperas is rather dearer.

REPORT ON MANURE MATERIAL.

During the past week the market has shown signs of improvement, there being a fairly good inquiry for both phosphatic and nitrogenous material.

High-grade Florida phosphate rock is inquired for, and it is reported that business has been done for 1900 shipment to good U.K port, at full prices. Quotations for Tennessee, South Carolina and similar grade Algerian rock, are unchanged.

Further sales of East Indian bone meal, ordinary quality, have been made at £5. per ton, ex quay Liverpool, autumn shipment. Spot quotations remain £5. 5s. to £5. 10s. per ton, ex store, according to quality.

Nitrate of soda is firmer on spot, quotations for ordinary quality being 7s. 7½d. per cwt., and 8s. per cwt. for fine quality.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron, flat: Scotch Warrants closed at 69s. 7d., Middlesbrough, 68s. 1d., cash, and hematite, 74s. 6d. Copper easier: Chili bars, G.O B.'s and G.M.B. s, closed at £75 17s 6d. to £76. 2s 6d. cash; and £76. 5s. to £76. 10s. three months. Tin, variable: Straits closed at £142. 7s 6d. to £142. 17s. 6d. cash, and £143 7s. 6d. to £143. 17s. 6d. three months; Australian, £144. 10s.; English ingots, £147. Lead, firm: Spanish, £14. 10s.; English, £14 12s. 6d. Silesian spelter, ordinary, £25. 12s. 6d. Nickel, 1s. 2½d. Antimony, £40. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 7s. *Copper Shares* steady: Cape, 4⅞ to 4 11/16; Copiapo, 3⅝ to 3¾; Libiola, 1¾ to 2; Mason & Barry, 3¼ to 4; Rio Tinto, 45⅛ to 45¾; Tharsis, 8 to 8¼.

GLASGOW, Wednesday.—Market weak, and a good business. Scotch done at 70s. 6d., 69s 5d., 70s, 69s. 4d., and 69s. 7d. cash; also at 70s. 6d., 69s. 9d., 70s. 6d., 69s 8d., and 69s. 11½d month; buyers, 69s. 6½d. cash. Cleveland done at 69s. 6d and 68s 1½d. cash; also at 69s 11d. and 69s. 10d. month; buyers, 68s. 1½d. cash. Cumberland hematite done at 75s., 74s. 5d., and 74s 6d. cash; also at 75s. 6d., 74s. 6d., 75s. 1d., and 74s. 10d month; buyers, 74s. 6d. cash.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is in fair demand, but is only offered in small lots at full prices. Olive is exceedingly firm and prices promise to advance again. Linseed is rather quiet and Liverpool makes in export casks are offered at 21s. 6d. to 22s. cwt. Cottonseed firm at 17s. 6d to 17s 9d. for Liverpool refined. Castor oil is steady and there is a fairly good demand with good seconds Calcutta at 2⅞d. and first pressure French 2¾d. per lb. Tallow firm in all positions, and South American has been done at 25s. 9d. up to the end of next month. Resin is steady and in good demand at recent currencies. Spirits of turpentine are again on the advance and are now quoted 33s. 6d. cwt. Petroleum unchanged.

CAKES.—Values of all descriptions of linseed are steady and without any material change from the close of last week, but the business passing is only on a moderate basis at £6. 8s. 9d. to £6. 13s. 9d. for American Western on the spot, £6. 12s. 6d. to £6. 15s for River Plate, £6. 17s. 6d. to £7. for Bombay, and £7. 2s. 6d. to £8 per ton for Liverpool brands; whilst Russian continue quite nominal in the absence of stock. Good to choice brands of American decorticated cottonseed are in only small demand, but the quotation is repeated at £5. 10s. to £6., according to quality, whilst Liverpool makes continue in request at £6. 2s. 6d. to £6. 15s. per ton, according to brand. There is rather a better tone in the market for Liverpool undecorticated makes, but the demand is only moderate at the quotations, viz £4. 17s. 6d. to £5. 7s 6d. per ton, according to brand. Egyptian on the spot are selling only in retail at £4. 7s. 6d. per ton, the tone of the market ruling steady thereat.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 91s, seconds 50s, and common 18s.; Devonshire, 40s. to 45s.; French, J C, 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s 9d.; black, 9s; blue, 6s. Oxide of iron: Common, £7.; medium, £10.; finest, £20.; Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—Linseed oil continues very steady and refined cotton oil is about 10s. per ton dearer; values of other oils show little alteration with the exception of mineral oils for lubricating. The arrivals of linseed are 7,977 qrs., making a total for the year of 290,641 qrs., against 211,352 qrs a year ago.; rapeseed, 71,211 qrs. against 42,285 qrs.; cottonseed, 91,681 tons against 116,751 tons; oilcake, 12,369 tons against 8,506, an increase of about 33⅓ %; olive oil, 2,463 tuns against 4,146 tuns; tar, 6,067 brls. against 1,013 brls. The exports of linseed oils have reached a total of 28 tons for the week: 2 tons Denmark, 4 Germany, 10 Holland, 7 Norway, 5 Turkey. The market price closes steady, 19s. 9d. spot, naked; 19s. 6d. August; 18s. 1½d. Sept./Dec.; 17s. 9d. Jan./April; boiled and refined, £1. to £1. 10s. per ton extra. The exports of cottonseed oil have reached a total for the week of 79 tons; 25 France, 22 Germany, 23 Holland, 2 Norway, 7 Sweden. Refined cotton oil is quoted 16s. 1½d. spot, naked; 16s. 3d. asked August, 14s. 4½d. paying Nov./April; barrels £1. 10s., ordinary casks £1. per ton extra. Rosins, heavy stocks are held and prices correspondingly low, sellers expecting higher prices when present arrivals are stored; B/E grades from 4s. 6d. on the spot to 9s. for W/W grades, other grades in proportion. Castor oil, extracted here, from 28s. in barrels for cold drawn to 24s. 6d. per cwt. in barrels. Cod

oil £16. to £18. per ton. Arachide nut oil, 26s. 6d. in barrels. Olive oil unchanged. Oleines, £18. to £20. per ton.

CAKES.—The Driffield Cake Company, Ltd., are declaring a dividend of 3%; whilst the Waterloo Mills Co., Ltd., declare a dividend of 5%. Linseed cakes are steady, 95% pure, £7. 2s. 6d. to £7 5s per ton; oilcakes (linseed), £6. 2s. 6d. to £6. 5s.; Russians, £7. to £7. 2s. 6d.; Americans, nil. Cotton cakes firmer in tone, best makes £5. 2s. 6d., seconds £4 17s. 6d, decorticated nil. Rape cakes, Black Sea, £4. 7s 6d. to £4 12s 6d.

PAINTS.—Unchanged, some firms appear to be doing good business in distemper paints.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The holiday interruption, so far as Glasgow is concerned, has been fully overcome, and production is now about back to its normal compass. The smaller centres, however, are here and there only as yet coming upon their annual stopping time, and August will be partly through before the latest of these are in turn overtaken. The Scotch calico printers have this year been a little better off with orders, and accordingly the holiday closure has been shortened more than is commonly the case. The great English and Scotch syndicate scheme is not so much discussed as it was two months ago, but it is understood that the valuation of the various Scotch printing works is still in hand, and not quite completed. Faith in a successful outcome is, however, not quite so lively as it was some time back. Sulphate of copper is slightly easier. The market for heavy chemicals is still in a satisfactory condition of activity, although the quotation for bleaching powder is a shade more in buyers' favour. Mineral oils and paraffins are all in rather firm standing, and further advances are not improbable.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 15s. od, 70/72° £7. 7s. 6d., 60/62° £6. 7s. 6d., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 12s. 6d. nett, Tyne; saltcake, 25s.; borax, English refined, £16., and boracic acid, £25 nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2¼d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3⅝d, less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 1s. 3d. to £12. 2s. 6d. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £24. 15s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2d. per lb.; paraffin wax, 120° semi-refined, 2¼d. to 2½d. per lb; paraffin spirit (naphtha), 9½d. to 10d. per gal; paraffin oil (burning), No. 1, 6 d.; and crystal, 7d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £5. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

With small stocks and a strong demand, prices have advanced for caustic soda and bleaching powder, and caustic soda is now quoted at £7. 10s. for 70%, and £8. 10s. for 76/76% per ton f.o.b. Tyne, while 10/- per ton advance is asked for bleaching powder, and in view of the enhanced cost of fuel, wages, etc., prices may be still further advanced.

Bleaching powder, softs, £5. 15s. per ton, nett; do., hards, £6. 5s. per ton, nett; caustic soda: 76/77% £8. 10s., and 70% £7. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4 12s. 6d. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton. gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s od. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. od. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt continues firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—Coals continue scarce and prices are maintained. Best Northumbrian steam are steady at 12/10½ per ton, free on board, steam small varies from 6/- at 6/3 per ton. Bunkers scarce and the market for coke is very strong.

New Companies.

Gauntlett Soap Co., Ltd.—CAPITAL £2,000. in £1. shares. This company has been formed to carry on the business of soap boilers dealers in soaps, saponaceous compounds, disinfectants, starches, and other laundry, household, cleansing, deturgent and toilet requisites.

Chemical and Metallurgical Association, Ltd.—CAPITAL £1,000. in £1. shares. This company has been formed to carry on the business of analytical chemists, metallurgists, etc. Registered without articles of association by N. L. Pocock, 16, Finsbury Circus, E.C.

Smokeless Chimney Co., Ltd.—CAPITAL £30,000. in £1. shares. This company has been formed to acquire from T. Lowe patent No. 22,614 of 1897, and to carry on the business of agents, engineers, metal merchants, designers, contractors, chemists, chemical manufacturers, etc. The subscribers to the memorandum of association are:—J. Southam, 78, Cross-street, Manchester, solicitor; J. C. Brister, Examiner Buildings, Manchester, stockbroker; R. Heywood, Examiner Buildings, Manchester, clerk; F. Jones, 5, Norfolk-street, Manchester, secretary; T. R. Ollerenshaw, 5, John Dalton-street, Manchester, shipping agent; J. C. Wheelock, 16, Napier-street, Salford, clerk; E. A. Newby, 57, Market-street, Manchester, cashier.

Harvey & Sons, Ltd.—CAPITAL £30,000. in £10. shares. This company has been formed to acquire (1) the business of a tanner and leather currier carried on by W. Harvey, at Nantwich, Cheshire, as W. Harvey and Co, and (2) the business of a tanner and currier carried on by J. Harvey, at Bury, Lancs., as Harvey and Sons, and to carry on the business of tanners, curriers, leather manufacturers and merchants, belting manufacturers and manufacturers of leather goods. The subscribers to the memorandum of association are:—W. Harvey, The Tannery, Nantwich, tanner; J. Harvey, Peel Tannery, Bury, tanner; W. H. H. Harvey, Peel Tannery, Bury, cashier; Mrs. S. A. Harvey, The Rookery, Nantwich; Mrs. H. Harvey, The Hawthorns, Whitefield; J. M. Harvey, The Tannery, Nantwich, tanner; R. B. Harvey, The Tannery, Nantwich, tanner. Registered office, Peel Tannery, School Brow, Bury, Lancs.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending July 22nd.

Acetic Acid—

Holland,	94 pks.	A. & M. Zimmermann
,,	111	Little & Johnston
,,	50	R. W. Greeff & Co.
France,	1	White Brs.
Belgium,	60	Elkan & Co.
,,	70	Beresford & Co.

Acetone—

Germany,	10 dms.	T. H. Lee

Alkali—

Austria,	17 t. 14 c.	J. Harrison
Belgium,	3 10	T. H Lee
France,	5	J. Barber & Co

Alum—

Germany,	3 pks.	R. W. Greeff & Co.

Ammonium Phosphates—

Holland,	4 pks.	Chemical Works

Antimony—

France,	65 c.	H Johnson & Sons

Antimony Ore—

Turkey,	71 t.	Union L. Co., Ld.

Asbestos—

Russia,	£12	W. Byford

Barium Sulphate

Belgium,	33 pks.	O' Hara & Hour

Barytes—

Belgium,	153 pks.	W. Harrison & Co.
,,	239	J. L Lyon & Co.
Germany,	57	,,

Bleaching Powder—

France,	53 pks.	J. M. Steel & Co.

Bromide of Iron—

Germany,	10 cks.	A. & M. Zimmermann

Bromine—

Germany,	40 pks.	A. & M. Zimmerman

Calcium Permanganate—

Germany,	5 kgs.	H. Wallace & Co.

Caoutchouc—

Zanzibar,	17 c.	Hale & Son
,,	17	L. & I. D. Jt Co.
Ceylon,	15	,,
,,	4	S. Figgis & Co.
U. States,	2	Beck & Pollitzer
,,	8	L. & I. D. Jt. Co.
Natal,	12	Brookes & Green
,,	13	Major & Field
,,	1 t. 10	L. & I. D. Jt. Co.
Germany,	1	Prop. Bull Wf.
,,	19	Butler's Wf. Ld
Mombassa,	32	W. M. Smith & Sons
Belgium,	2	Prop. Bull Wf.
France,	2	13 H. Johnson & Sons
,,	3	Prop. Bull Wf.
,,	2	E. Flagrollet, Parent, & Co.
Straits,	3 11	Prop. Bull Wf.
,,	7 15	Butler's Wf., Ld
N. Russia,	1 1	Lavington Brs.

Carbon—

Holland,	£265	Phillips & Graves

Castor Oil—

Belgium,	20 brls.	Sawer, Sons, & Co.
,,	20	A. Brown & Co.
,,	70	C. & E. Morton
,,	20	Humphrey & Co.
France,	20	F. Boehm
,,	40	R. W. Greeff & Co.
,,	30	Lucas & Spencer's Wf.
Italy,	70 cs.	Nicol Bros., Ld.

Caustic Potash—
Germany, 38 dms. Petri Brs.
,, 58 J. M. Steel & Co.

Chemicals *(otherwise undescribed)*
Holland, £8 H. Lorenz
,, 13 A. & M. Zimmermann
,, 18 Hernu, Peron, & Co.
Germany, 242 L. & I. D. Jt. Co.
,, 23 H. Lambert
Belgium 132 Leach & Co
,, 18 John Cockerill Line

Coal Products—
Pitch
Sweden, 50 brls. Lieveking, Podmore & Co

Tar
Russia, 62 brls. Linck, Moeller, & Co.
Channel Is 500 Burt, Boulton, & Co.
N. Zealand, 310 Goad, Rigg & Co.
,, 47 Beresford & Co.
,, 20 Brown & Elmslie

Cobalt Ore—
Sydney, 63 t. C. H Gare

Colours—
Holland, 20 cks. R. Baelz & Co.
Italy 12 brls C. Gee & Co.

Cream of Tartar—
Holland, 12 pks Kirkpatrick, Barr & Co.
Spain, 2 B. & F. Wf. Co., Ld.
France, 5 W. C. Bacon & Co
,, 5 F. C. Devon & Co
,, 2 Vokins & Co., Ld
,, 8 C. Atkins & Nisbet
,, 5 M. Ashby, Ld.

Dyestuffs—
Argols
Cape, 8 pks. L. & I. D. Jt. Co.
Spain, 41 Thames S. T. & L. Co., Ld.

Cochineal
Canary Is., 13 pks. W. M. Smith & Sons

Extracts
Austria, 200 pks. Boutcher, Mortimore & Co
Germany, 220 Argo S. S. Co.
France, 5 T H Lee
Belgium, 20 T. Ronaldson & Co.
Holland, 50 J. Norrenberg & Co.

Gambier
Straits, 725 pks. Prop. Bull Wf.
,, 2,008 bls. Adamson, Gilfillan & Co.

Indigo
E. Indies, 10 chts. L. & I. D. Jt. Co.
,, 5 cs. H. Evans & Co
Germany, 3 Elkan & Co.

Myrabolams
E. Indies, 1,203 pks. J. Graves
,, 1,000 pckts. Sollas & Sons

Saffron
Spain, 2 cs. J. Knill & Co.

Shumac
Italy, 50 pks. W. W. Ware & Co.
,, 200 Union L. Co., Ld.
Holland 5 t. Phillipps & Graves

Tanners' Bark
Natal, 30 t. Flack, Chandler & Co.
,, 11 Boutcher, Mortimore & Co.
,, 100 J. T. Rennie, Son, & Co.
,, 67 H. Devitt & Co
,, 74 A. & W. Nesbitt
,, 15 L. & I. D Jt. Co.
Belgium, 10 Leach & Co.
N. Zealand, 12 L. & I. D. Jt. Co.
Adelaide, 47 Leach & Co.

Valonia
A. Turkey, 226 t. A. & W. Nesbitt
,, 176 S. Barrow & Bro.
,, 91 F. Claydon & Co.
,, 11 Fellows, Morton, & Co.
,, 25 Anning & Cobb

Farina—
Germany, 35 pks. J. Barber & Co.
,, 50 J. Knill & Co.
,, 20 R. Bennett & Co.
Holland, 100 ,,
,, 50 J. Knill & Co.

Glucose—
U. States, 6,575 pks. 8,398 c. R. G. Hall & Co.
,, 500 503 Perkins & Homer
,, 600 1,120 Fellows, Morton & Co.
,, 250 250 Trier, Meyer & Co.
,, 370 370 Union L. Co., Ld.
,, 880 680 E. Thompson & Co.
,, 300 300 C. Barnard
,, 100 585 J. Keiller & Son Ld.
,, 100 617 A. E. Piggott
,, 700 700 L. & I D Jt. Co
,, 50 900 E. & T. Pink
,, 50 300 Page, Son & East
,, 25 125 G. Clarke & Son
France, 150 150 W. E. Cole
,, 600 600 L. Norman & Co., Ld.
,, 100 100 Proprs. Fenning's Wf.
Germany, 13 105 J. Knill & Co.
,, 100 100 Trier Meyer & Co.
,, 500 500 H. Tate & Sons

Glue—
Belgium, £150 G. E. Banes
,, 675 Becker & Wagner
,, 34 Leach & Co.
,, 702 J. Harrison
France, 14 Bennett S. S Co
,, 1,920 T. M. Duche & Sons
,, 164 J. Harrison
,, 38 Mory & Co
Italy, 35 Cotsell & Co.
Holland, 75 T. H. Lee
,, 17 Phillips & Graves
,, 20 G. S. N. Co.
Austria, 84 Steinhoff, Sons & Co.
Germany, 148 ,,
,, 40 Argo S. S. Co.
,, 213 L. & I. D. Jt. Co.

Glue Stock—
Belgium, 26 bls. Hicks, Nash & Co.

Glycerine—
Germany, £60 R. W. Greeff & Co.
,, 202 Butler's Wf., Ld.
N. Zealand 270 H. Hill & Sons
France, 310 ,,
,, 35 J. L. Lyon & Co.
Holland, 400 J. Barber & Co

Gutta Percha—
Straits, 2 t. 9 c. Huttenbach & Co.
,, 3 4 Anderson, Weber & Smith
,, 10 2 Prop Bull Wf.
,, 18 15 Gilman Brs & Co.
,, 24 5 Kleinworth, Sons & Co
France, 10 Davies, Turner, & Co.
Germany, 1 4 Soundy & Sons

Iodine—
Japan, 10 cs. W. M. Smith & Sons

Iron Oxide—
Austria, 15 cks. O'Hara & Hoar

Litharge—
Germany, 30 pks. Winstone & Sons

Manure—
Belgium, 25 t. T. Ronaldson & Co.
E. Indies, 50 A. Hunter & Co.

Methyl Alcohol—
Belgium, 1,280 g. Lister & Biggs
Germany, 1,520 W. Iszard
Sweden, 10 dms. T. Jones & Co.

Molasses—
———, 301 cks. 1,860 c. J. Forsey
U. States, 100 556 Ohlenschlager Brs.
,, 500 1,750 L. & I. D. Jt. Co.
,, 400 2,271 J. Forsey

Ochre—
Holland, 36 pks. Phillipps & Graves

Oxalate
Belgium, £72 J. Harrison

Paraffin Wax—
U. States, 124 brls. Mordaunt Brs

Pearl Ash—
U. States, 2 t. 16 c. S. Ward & Co.

Phosphates—
Belgium, 300 t. Odams Manure & Chemical Co.

Potash—
Germany, 5 pks. L. & I. D. Jt Co.

Potassium Bicarbonate—
Holland, 18 cks. A. & M. Zimmermann

Potassium Carbonate—
Germany, 89 t. 4 c. Gas Light & Coke Co.
,, 1 15 Petri Brs.
,, 1 1 H. Lambert
,, 31 J. M. Steel & Co
Canada, 7 Charles & Fox

Potassium Manganate—
Germany, 20 pks. Butler's Wf., Ld.

Potassium Oxalate—
Holland, 20 cks. R. W. Greeff & Co.

Red Lead—
Germany, 19 pks. J. Barber & Co
Holland, 40 Kerestedji & Co.

Rosin—
U. States, 130 brls. Moore & Hole

Salicylic Acid—
Belgium, 2 pks. John Cockerill Line
Germany, 49 Butler's Wf., Ld.

Saltpetre—
Germany, 30 cks. L & I. D. Jt. Co.

Soap—
Holland, £10 Stohp & Co

Soda—
Austria, 28 t. F. Claydon & Co.
Germany, 10 Petri Brs
Belgium 10 10 c. H. Lambert
Holland. 11 R. W. Greeff & Co.

Soda Ash—
Belgium, 50 t. H. A. Stanfield

Soda Crystals—
Belgium, 20 t. Leach & Co
,, 10 3 c. Wilson & Co.
,, 20 T. Ronaldson & Co.

Sodium Bicarbonate—
Austria, 5 t. 5 c. City Coml. Wf.

Sodium Hypochlorite—
Belgium, 16 pks. W. Slimmon
Germany, 3 t. 12 c. H. Lambert
Holland, 5 R W. Greeff & Co.

Sodium Prussiate—
Belgium, 19 cks. J. Owen

Starch—
Holland, 88 pks G. S. N. Co.
,, 50 Hernu, Peron, & Co.
,, 66 J. Barber & Co
,, 1,000 Barnes & Co.
,, 2,949 Little & Johnston
U. States, 250 C. Tennant, Sons, & Co.
Austria, 50 Seaward Brs., Ld.
Germany, 420 ,,
,, 10 Argo S. S. Co.
,, 4,020 Horne & Co.
Belgium, 180 Becker & Wagner
,, 120 T. Ronaldson & Co.
,, 100 Taylor Brs.
,, 220 T. H. Lee
,, 150 Leach & Co
France, 780 W. E. Cole

Stearine—
France, 158 bgs. H. Hill & Sons
Holland, 68 ,,
Belgium, 63 ,,
,, 63 W. H. Mitchell
,, 250 cs. Hore & Scrivener
,, 6 cks. John Cockerill Line
U. States, 6 Lunham & Moore

Sulphur Chloride—
Holland, 20 pks. Typke & King

Sulphuric Acid—
Germany, 2 pks. L. & I. D. Jt. Co.
Holland, 30 Phillipps & Graves

Talc—
Canada, £9 Y. D. Hewett & Co.

Tallow—
Germany, 5 cks. Craven & Co.
,, 5 O. Oertell
Melbourne, 154 L. & I. D. Jt. Co.
,, 49 Bessler, Waechter, & Co.
N. Zealand, 25 Brown & Elmslie
,, 75 Low, Sons, & Bedford
,, 23 Deering & Robottom
,, 10 T. Pearson & Co.
,, 124 Dalgety & Co., Ld.
,, 18 Flack, Chandler, & Co.
,, 135 Lucas & Spencer's Wf.
,, 276 J. Graves
,, 8 Leach & Co.
,, 15 N. Z. L. & M. A. Co.
,, 48 Phillipps & Graves
,, 99 Culverwell, Brooks, & Co.
,, 5 Anning & Cobb
,, 13 H. Hill & Sons
,, 25 A. B. Curtis & Co.
,, 65 J. Greig
Holland, 10 Beresford & Co.
,, 10 J. Owen
N.S.W., 156 W. France & Co., Ld.
,, 156 L. & I. D. Jt. Co.

Tartaric Acid—
Holland, 4 pks. Kirkpatrick, Barr, & Co.
,, 20 B. & F. Wf. Co., Ld.
Belgium, 22 F. C. Devon & Co.

Turpentine—
N. Russia, 105 brls. D. Smith

Ultramarine—
Holland, 3 pks. Phillipps & Graves
,, 22 G. S. N. Co.
,, 53 Thames S. T. & L. Co., Ld.
Germany, 20 Steinhoff, Sons & Co.
Belgium, 5 J. Harrison

Varnish—
U. States, 26 pks. Atlantic Transport Co.
,, 57 Taylor Brs.
Holland, 2 Phillipps & Graves

White Lead—
Belgium, 90 pks T. & W. Farmiloe, Ld.
,, 12 J. L. Lyon & Co.
Holland, 20 Kerestedji & Co.
,, 54 F. G. Clifford
,, 20 H. B. Alder & Co
,, 20 A. & M. Zimmermann
,, 20 Perkins & Homer

Wolfram Ore—
Sydney, 54 t. C S. Lovell

Wood Pulp—
Norway, 800 pks. W. E. Bott & Co.
,, 153 A. E. Reed & Co
,, 4,310 London Paper Mills Co.
,, 500 E. J. & W. Goldsmith
Belgium, 2,126 J. Harrison
Sweden, 1,100 Fellows, Morton, & Co.
,, 330 Christophersen & Co.
,, 8,340 Henderson, Craig, & Co.
Germany, 203 W. Friedlaender

Zinc Oxide—
U. States, 300 pks. M. Ashby, Ld.
Holland, 80 ,,
,, 75 Burrell & Co.

LIVERPOOL.

Week ending July 20th.

Acetate of Lime—
New York, 1,200 bgs.

Alcohol—
Hamburg 2 cks.

Alumina Sulphate—
Rotterdam, 126 cks.

Ammonia—
Boston 100 cylders. J. Simpson & Co.

Antimony—
Antofagasta, 124 bgs. A Aramayo & Co.

Arsenic—
Stettin, 20 bgs.

Barytes—
Antwerp, 84 cks

Bone Ash—
Zarate, 166 bgs. J. Nelson & Sons, Ld.

Bones—
Valparaiso, 21 sks.

Boracic Acid—
Hamburg, 5 cks.

Borate of Lime—
Antofagasta, 679 sks. Kleinwort, Sons, & Co.

Borax—
Hamburg, 5 cks.

Caoutchouc—
Havre, 33 bls.

Chemicals *(otherwise undescribed)*
Antwerp, 5 cs.

Citric Acid—
Messina, 20 cks.

Coal Products—
Tar
Boston, 300 brls. Crewe, Levick, & Co.

Tar Oil
Antwerp, 24 cks.

Colours—
Antwerp, { 4 cs. 9 cks.

Rotterdam, { 1 / 11 tubs
Stettin, 20 cks. Evans, Sons, & Co., Ld.
" 100

Cottonseed Oil—
Baltimore, 200 brls.
Newport News, 75

Cream of Tartar—
Bordeaux, 48 cks.

Dyestuffs—
Argols
Leghorn, 1 ck.
Cutch
Rangoon, 1,016 bxs.
Singapore, 370
Extract
Havre, 24 cks. Cunard S.S. Co.
New York, 12 brls. McArthur & Co.
100 bxs.
Rotterdam 115 cks.
Rouen, 285 Co-op. W'sale Society, Ld.
Fustic
Kingston, 750 pcs. Hesse, Newman, & Co.
" 220
Vera Cruz, 1,632 Rosing Brs. & Co.
Gambier
Singapore, 4,397 bls.
Myrabolams
Bombay, 616 bgs. E. D. Sassoon & Co.
" 2,599
Shumac
Bordeaux, 50 bls.
Palermo { 75 / 1,000 bgs.
Valonia
C'stantinople, 1,402 bgs. J. Tekeian
Havre, 100 sks. Cunard S.S Co.
Smyrna, 322 bgs G. Essayan & Co.

Dyewood Extract—
Philadelphia, 200 bxs

Glucose—
Baltimore, 550 brls.
Boston, 50

Glue—
Rotterdam, 160 bgs.
Rouen, 54 cks. Co-op. W'sale Society, Ld.

Glue Stock—
Hamburg, 21 bgs.

Logwood Extract—
New York, 40 cks.

Manganese—
Rotterdam, 5 cks.

Manganese Ore—
Coquimbo, 984 t.
Yokohama, qty.

Molasses—
N. Orleans, 1,500 brls.

Nitrate—
Iquique, 6,334 bgs.

Paraffin Wax—
New York, 549 brls. Thompson & Bedford
Philadelphia, 70 Anglo-Am. Oil Co.
Rangoon, 1,066 bgs.

Phosphates—
Ghent, 300 t. J. T. Fletcher & Co.
Punta Gorda, 1,868

Phosphorus—
Montreal, 65 cs.

Potash—
Dunkirk, 29 dms. Bancroft & Co.
Hamburg, 74 cks.
Rouen, 3 Co-op W'sale Society Ld.

Pyrites—
Huelva, 5,233 t. Matheson & Co.

Quebracho Extract—
Hamburg, 25 bgs.

Rosin—
New York, 701 brls.

Salicylic Acid—
Hamburg, 6 cs.

Saltpetre—
Hamburg, 8 cks.

Sheep Dip—
Baltimore, 100 sks.

Soap—
Boston, 8 cs. J. B. Mason
" 3
Philadelphia, 160 bxs. Cudahy Packing Co.
" 2,000

Rotterdam, { 9 pks. / 2 cs.
W. C Africa, 2 Wilson & Coventry

Soap Lyes
Marseilles, 30 cks. G. C. Blackwell

Soap Stock—
New York, 1 brl.

Soda Ash—
B. Ayres, 78 bgs. United Alkali Co.

Sodium Nitrate—
Iquique, 7,835 bgs.

Starch—
Antwerp, 110 cs. J. T. Fletcher & Co.
" 410
Baltimore, 400 bgs.
Boston, U S.A. 200 sks. Colby & Co.
Dunkirk, 80 cs.
Hamburg, 160
Newport News, 110 bgs
Rotterdam, 25 cs.

Stearine—
Amsterdam, 50 bgs.

Sulphur—
Catania, { 100 brls. / 105 bgs.

Tallow—
Baltimore, 75 brls.
Boston, { 60 / 300 tcs.
Hamburg, 2 cks.
Newport News, 300 tcs.
New York, 200 Colby & Co.
" 125 hhds.
Zarate, 303 pps. J. Nelson & Sons, Ld.

Tartar—
Naples, 1 ck.

Tartaric Acid—
Bordeaux, 8 cks.

Turpentine—
Hamburg, 5 cs.

Ultramarine—
Rotterdam, 16 cks.
" 20 cs.

Varnish—
Rotterdam, 2 tuns

White Lead—
Rotterdam, 170 cks.

Wood Pulp—
Christiania, 41 cs. L. S. Dixon & Co.
Drammen, 88 "
Gander, Nfd. 1,103 lds. Job Brs.
Halifax, 5,233 bls. Becker & Co.
New York, 111 cs. Vil'osan & Co.
" 106 Tillotson & Son, Ld.
Rotterdam, 165

Zinc Oxide—
Antwerp, 80 brls. 2,095 plts.

Zinc White—
Rotterdam, 20 cks.

MANCHESTER.

Week ending July 22nd.

Antimony Bifluoride—
Hamburg, 5 cks.

Antimony Salt—
Hamburg, 5 cks.
Rotterdam, 6

Barytes—
Antwerp, 250 bgs. 68 pks.
Rotterdam, 100

Castor Oil—
Antwerp, 141 brls.

Chemicals *(otherwise undescribed)*
Rotterdam, 2 cks.

Chrome Alum—
Rotterdam, 5 cks.

Coal Products—
Alizarine
Rotterdam 135 cks.
Aniline Oil
Rotterdam. 4 cks.
Aniline Salt
Rotterdam, 57 cks.

Colours—
Hamburg, 4 cks.
Rotterdam, { 48 26 cs. / 46 brls. / 2 bxs.

Cottonseed Oil—
New York, 200 brls.

Dyestuffs—
Extract
Antwerp, 9 brls.

Tannin
Hamburg, 10 cks.

Farina—
Hamburg, 100 bgs.

Gelatine—
Rotterdam, 5 cs

Glucose—
New York, 10 brls.

Glue—
Antwerp, 21 cks. 50 bls
Hamburg, { 4 / 20 bgs.
Rotterdam, 340

Litharge—
Rotterdam, 55 cks.

Lithopone—
Rotterdam, 20 cks.

Nitrite—
Rotterdam, 16 cks

Paraffin Wax—
New York, 225 brls.

Potash—
Hamburg, 31 cks 21 dms.
Rotterdam, 2 10

Potassium Carbonate—
Hamburg, 10 cks.

Potassium Chlorate—
Gothenburg, 20 kgs.

Potassium Permanganate—
Hamburg, 10 kgs.

Pyrites—
Huelva, 2,184 t.

Red Lead—
Rotterdam, 22 cks.

Salammoniac—
Antwerp, 8 brls.

Silica Fluoride—
Hamburg. 5 cks.

Sodium Silicate—
Rotterdam, 4 cks.

Starch—
Antwerp, 600 cs.
Hamburg, 160 cks.
New York, 125 bgs.
Rotterdam, 90 50 bls.

Stearine—
Antwerp, 63 bgs.
Rotterdam, 7 bls.

Tallow—
New York, 50 hds. 100 tcs.

Tartar Emetic—
Hamburg, 18 cks.

Tartaric Acid—
Rotterdam, 24 cks.

Ultramarine—
Rotterdam, 6 cs.

Waste Salt—
Hamburg, 2 lots

Wood Pulp—
Gothenburg, 1,761 bls.
Rotterdam, 440 pks.

Zinc Oxide—
Antwerp, 3 cks.

Zinc White—
Rotterdam, 10 cks.

HULL.

Week ending July 22nd.

Acetic Acid—
Rotterdam, 10 bkts. Hull & Netherlands S. S. Co.

Acids—
Leghorn, 28 cks. Wilson, Sons, & Co., Ld.

Alumina Sulphate—
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.

Antimony—
Leghorn, 40 cks. Wilson, Sons, & Co., Ld.
Rouen, 10 "

Asbestos—
Genoa, 27 bls. Wilson, Sons, & Co., Ld.

Barytes—
Antwerp, 41 cks. Bailey & Leetham, Ld.
" 100 bgs. H. F. Pudsey
" 105 cks. "
Bremen, 38 Sissons Brs. & Co.
" 29
Rotterdam, 22 Hull & Netherlands S. S. Co.

Borax—
Hamburg, 20 cks.

Castor Oil—
Leghorn, 10 cs. Wilson Sons, & Co., Ld.
Marseilles, 6 cks. "
Venice, 190 cs. "

Chemicals *(otherwise undescribed)*
Danzig, 14 cks.
Rotterdam, 3 Hull & Netherlands S. S. Co.

Citric Acid—
Messina, 20 cks

Coal Products—
Alizarine
Rotterdam, 35 brls. Hull & Netherlands S. S. Co.
94 pks
Aniline
Rotterdam, 139 pks. Hull & Netherlands S. S. Co
Creosote Salt
Rotterdam, 34 cks. Hull & Netherlands S. S. Co
Pitch
Archangel, 1,000 cs.
Tar
Archangel, 4,000 brls.
Stockholm, 10 Wilson, Sons, & Co., Ld.
Uleaborg, 250
Tar Oil
Archangel, 100 cs.

Colours—
Antwerp, 86 pks. Wilson, 1 cs. Sons, & Co., Ld.
" 3 cks. Bailey & Leetham, Ld.
Hamburg, 40 Wilson, Sons, & Co., Ld.
Marseilles, 8 cs. "
Rotterdam { 102 pks. / 3 cks. / 2 bxs. Hull & Netherlands S. S. Co.
Trieste, 25 brls. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Genoa, 27 brls. Wilson, Sons, & Co., Ld
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Dextrine—
Stettin, 35 bgs. Wilson, Sons, & Co., Ld.

Dyestuffs—
Extract
Fiume, 70 brls. Wilson, Sons, & Co., Ld
Rouen, 38 cks. "
Logwood
Hamburg, 25 bgs. Wilson, Sons, & Co., Ld.
Myrabolams
Bombay, 8,176 bgs.
Sumac
Palermo, 950 bgs.
" 850 bls. Wilson, Sons, & Co., Ld.
Trieste, 20 bgs. "
Sumac Extract
Trieste, 10 brls. Wilson, Sons, & Co., Ld.

Dyewood Extract—
Riga, 215 cs. Wilson, Sons, & Co., Ld.

Farina—
Harlingen, 100 bls. Hull & Netherlands S. S. Co.
Stettin, 100 bgs.

Glucose—
Hamburg, 25 cks. Wilson, Sons, & Co., Ld.

Glue—
Rotterdam, 5 bgs. Hull & Netherlands S. S. Co.
Stettin, 8 pks. Wilson, Sons, & Co., Ld.

Glue Stock—
Rouen, 102 bls. Wilson, Sons, & Co., Ld.

Limestone—
Antwerp, 2 cs. Wilson, Sons, & Co., Ld.

Linseed Oil—
Rotterdam, 56 brls. Hull & Netherlands S. S. Co.

Ochres—
Bremen, 3 cs. J. Pyefinch & Co.
" 20 cks. Wilson, Sons, & Co., Ld.
Marseilles, 120

Perchloride of Iron—
Hamburg, 3 cks. Bailey & Leetham, Ld.

Phosphates—
Bona, 500 t.
Plumbago—
Genoa, 200 bgs.
Potash—
Antwerp, 18 pks. Wilson, Sons & Co., Ld.
Dunkirk, 64 cks. "
Potassium Sulphate—
Hamburg, 5 cks. Bailey & Leetham, Ld.
Pyrites—
Huelva, 2,083 t.
Red Lead—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Saltpetre—
Hamburg, 9 cks. Wilson, Sons, & Co., Ld.
Soap—
Dunkirk, 5 cs. Wilson, Sons, & Co., Ld.
Marseilles, 41 "
Naples, 46 "
Soda—
Amsterdam, 135 bgs. Hull & Netherlands S. S. Co.
Ghent, 18 cks. Wilson, 100 bgs. Sons, & Co., Ld.
Starch—
Amsterdam, 80 cs. Hull & Netherlands S. S. Co.
Antwerp, 240 Wilson, Sons, & Co., Ld.
Bremen, 67 cks Veltmann
3,408 cs. & Co.
Ghent, 149 Wilson, Sons, & Co., Ld.
Rotterdam, 200 bgs. Hull & Netherlands S. S. Co.
20 cs.
Sulphur—
Catania, 31 cks. / 1,393 bgs.
Tallow—
Dunkirk, 205 cks. Wilson, Sons, & Co., Ld.
Tartaric Acid—
Barletta, 91 pks. Wilson, Sons, & Co., Ld
Molfetta, 2 cks
Rotterdam, 10 Hull & Netherlands S. S. Co.
Turpentine—
Riga, 53 cks. Wilson, Sons, & Co., Ld.
Ultramarine—
Rotterdam, 13 pks. Hull & Netherlands S. S. Co.
Waste Salt—
Hamburg, 50 bgs. Lofthouse & Saltmer
White Lead
Amsterdam, 23 cks. Hull & Netherlands S. S. Co.
Antwerp, 36 Bailey & Leetham, Ld.
Rotterdam, 125 Hull & Netherlands S. S. Co.
Wood Pulp—
Christiania, 18 cs.
" 1,830 bls. Wilson, Sons, & Co., Ld.
Dronthein, 741 "
Gothenburg, 647 "
Helsingfors, 502 J. Good & Sons
Norrkoping, 200
Zinc Oxide—
Antwerp, 40 brls. Bailey & Leetham, Ld.
Zinc White—
Amsterdam, 5 cs. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending July 27th.

Asbestos—
Genoa, 60 bls. / 104 pks.
Barium Sulphate—
Antwerp, 76 cks. / 1,301 bgs.
Barytes—
Hamburg, 50 bgs.
Bichromate—
Hamburg, 10 cs.
Boracic Acid—
Leghorn, 8 cks.
Castor Oil—
Antwerp, 101 cks.
Dunkirk, 135
Fiume, 30 cs.
Leghorn, 55 / 3 brls.
Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs.
Hamburg, 5
Coal Products—
Alizarine
Rotterdam, 41 cks. J. Rankine & Son
2 cs. 26 brls.
Aniline
Amsterdam, 1 ck. J. Rankine & Son
1 cs.
" 1 ck.
Rotterdam, 26 2 cs. "
Pitch
Archangel, 600 cks. Young, Falconer, & Co.
Tar
Archangel, 3,232 brls. Young, Falconer, & Co.
Colours—
Hamburg, 6 cks. / 1 cs.
Rotterdam, 4 / 7 bxs. / 9 cks. / 38 pks. / 6 brls. J. Rankine & Son
Cream of Tartar—
Genoa, 12 brls.
Dyestuffs—
Extract
Antwerp, 25 cks.
Baltimore, 10 brls.
Fiume, 204
Indigo
Dunkirk, 6 cks.
Rotterdam, 5 J. Rankine & Son
Shumac
Palermo, 1,450 bgs.
Dyewood Extract—
Antwerp, 5 cks.
Glue—
Fiume, 100 bgs.
Genoa, 2
Rotterdam, 30 J. Rankine & Son
Manganese—
Antwerp, 1 ck.
Mineral White—
Genoa, 20 bgs.
Oxalic Acid—
Rotterdam, 12 cks. J. Rankine & Son
Painters' Colours—
Antwerp, 4 cks. / 2 cs.
Phosphates—
Antwerp, 1,010 bgs.
Saltpetre—
Hamburg, 1 hx.
Soap—
Fiume, 84 cs.
Genoa, 122
Naples, 19
Sodium Betanaphthol—
Rotterdam, 3 cks. J. Rankine & Son
Sodium Nitrate—
Rotterdam, 19 cks. J. Rankine & Son
Starch—
Antwerp, 607 cs.
Fiume, 80 bgs.
Stearine—
Amsterdam, 60 bgs. J. Rankine & Son
" 60
Sulphur—
Girgenti, 800 t.
Sulphur Natrium—
Rotterdam, 1 ck. J. Rankine & Son
Tartar—
Bordeaux, 9 cks.
Oporto, 6
Tartaric Acid—
Rotterdam, 6 cks. J. Rankine & Son
White Lead—
Rotterdam, 152 pks. J. Rankine & Son
Wood Pulp—
Christiania, 320 bls. 32 cs.
Gothenburg, 4,224
Halmstadt, 20 t.
Hamburg, 60 bls.
Montreal, 144 bills.
Oporto, 1,000 bgs.
Zinc Oxide—
Antwerp, 25 cks.
Zinc White—
Rotterdam, 5 cks. J. Rankine & Son

TYNE.

Week ending July 22nd.

Asbestos—
Hamburg, 49 bgs. Tyne S. S. Co.
Rotterdam, 8 bls. "
Barytes—
Antwerp, 200 bgs. Tyne S. S. Co.
Chemicals *(otherwise undescribed)*
Amsterdam, 2 cs. W. Swanston & Sons
Colours—
Antwerp, 3 bskts. Tyne
4 cks. S. S. Co.
Hamburg, 1 "
Gelatine—
Rotterdam, 4 cs. Tyne S. S. Co.
Soda—
Bergen, 1 cs. S. T. Taylor & Sons
Starch—
Antwerp, 50 cs. Tyne S. S. Co.
Rotterdam, 139 "
White Lead—
Antwerp, 12 cks. Tyne S. S. Co.
Wood Pulp—
Arendal, 400 bls. P. H. Matthiessen & Co.
Bergen, 40 pks. S. T. Taylor & Sons
Christiania, 176 bls.
Gothenburg, 244 pks.
Uleaborg, 569½ cubic fthms. Osbeck & Co.
Zinc Oxide—
Rotterdam, 20 cks. Tyne S. S. Co.
Zinc White—
Hamburg, 12 cks. Tyne S. S. Co.

GOOLE.

Week ending July 19th.

Antimony—
Boulogne, 14 cks.
Barytes—
Antwerp, 79 bgs. / 94 cks.
Carbonate of Lime—
Antwerp, 200 bgs.
Chemicals *(otherwise undescribed)*
Rotterdam, 1 ck.
Coal Products—
Alizarine
Rotterdam, 148 cks. 2 cs.
Colours—
Hamburg, 1 cs.
Dyestuffs *(otherwise undescribed)*
Amsterdam, 1 ck. 3 pks.
Antwerp, 5
Boulogne, 75 31
Rotterdam, 415 80 cs.
Dyestuffs—
Extract
Hamburg, 25 cks.
Indigo
Rotterdam, 6 chts.
Farina—
Hamburg, 100 bgs.
Glucose—
Calais, 100 bgs.
Glue—
Antwerp, 20 bgs.
Boulogne, 9 bs.
Rotterdam, 10 cs.
Ochre—
Dunkirk, 20 cks.
Phosphates—
Ghent, 160 t.
Potash—
Calais, 12 dms
Dunkirk, 2 cks.
Quebracho Extract—
Antwerp, 25 bgs.
Saltpetre—
Rotterdam, 100 bgs.
Starch—
Ghent, 183 cs.
Waste Salt—
Hamburg, 100 t. / 200 cks.
Wood Pulp—
Rotterdam, 110 bs.

GRIMSBY.

Week ending July 22nd.

Caoutchouc—
Antwerp, 3 cs.
Hamburg, 12
Rotterdam, 1 2 pks.
Colours—
Antwerp, 3 cks. 103 pks.
Hamburg, 27 1 cs. 92
Rotterdam, 5
Dyestuffs *(otherwise undescribed)*
Dieppe, 7 cks.
Phosphorus—
Antwerp, 1 cs.
Starch—
Antwerp, 264 cs.
Varnish—
Antwerp, 12 cs.
Wood Pulp—
Drammen, 2,750 bs.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending July 26th.

Alkali—
Mauritius, 5 t. 7 c. £16
Ammonia—
Alexandria, 1 t. £45
Calcutta 16 cs. 24
Melbourne, 20 27
Sydney, 20 27
Ammonium Carbonate—
Melbourne, 20 cs. £34
Rangoon, 5 13
Ammonium Muriate—
Cologne, 20 cks. £94
Ammonium Nitrate—
Sydney, 3 t. £93
Ammonium Sulphate—
Hamburg, 50 t. £600
Mauritius, 200 2,575
Arsenic—
Sydney, 20 dms. £22
Bisulphite Lime—
Bombay, 2 t. 13 c. £39
Rangoon, 4 6 63
Bleaching Powder—
Delagoa Bay, 1 t. 17 c. £15
Borax—
Antwerp, 30 brls. £48
Antofagasta, 13 c. 36
E. London, 5 t. 83
Pt. Elizabeth, 12 13
Rotterdam, 5 9 75
Townsville, 1 16
Calcium Chloride—
Singapore, 12 c. £30
Carbonic Acid Gas—
Channel Is., 66 tubes £25
Rotterdam, 3 cyldrs. 12

Caustic Potash—
Townsville, 11 c. £30
Wanganui, 1 t. 7 35
Caustic Soda—
Auckland, 5 t. 3 c. £47
Bahia, 9 12 64
Dunedin, 9 91
Melbourne, 18 15
Pt. Elizabeth, 9 5
Sydney, 7 5
Townsville, 1 10 72
Chemicals (*otherwise undescribed*)
Antwerp, 16 cks. 2 brls. £252
Auckland, 1 cs. 33 pks. 47
Bombay, 10 64
Boulogne, 1 16
Brisbane, 1 27 48
Brussels, 6 kgs. 2 63
Dunkirk, 22 dms. 72
Durban, 27 119
Genoa, 5 cks. 50
Hamburg, 47 kgs. 323
Lisbon, 2 12
Malaga, 1 43
Melbourne, 29 pks. 44
New York, 60 600
Paris, 15 brls. 9 81
Pt. Elizabeth, 6 cs. 9
Rotterdam, 10 5 152
Sydney, 25 13
Teneriffe, 200 bgs. 115
Tientsin, 23 cks. 40
Citric Acid—
Aden, 1 c. £9
Alexandria, 2 kgs. 18
Channel Is., 21 cbys. 42
Christiania, 5 43
Hobart, 1 12
Libau, 6 61
Montreal, 6 cks. 32
Rosario, 2 16
Trinidad, 1 cs. 8
Coal Products—
Alizarine
Boston, 49 cks. £537
Lisbon, 1 14
St. Petersburg, 4 cs. 204
Aniline
Boulogne, 2 cks. £14
Dunedin, 2 cs. 23
Melbourne, 1 9
Aniline Oil
Rotterdam, 12 dms. £400
Anthracene
Rotterdam, 480 cks. £579
Benzol
Rotterdam, 80 cks. £151
Teneriffe, 15 dms. 9
Carbolic Acid
Napier, 20 dms. £18
Rio de Janeiro, 5 cks. 17
Sydney, 8 26
Colours
Boston, 11 cks. £222
Boulogne, 3 14
Creosote
Beira, 10 dms. £40
Camaret, 560 cks. 343
New York, 200 267
Creosote Salts
Ghent, 331 bgs. £44
Naphtha
Melbourne, 125 dms. £133
Naphthaline
Newport News, 88 cks. £90
Pitch
Boston, 900 bxs. £520
Dunedin, 15 brls. 8
Helsingfors, 135 t. 169
Levuka, 8 6
Malta, 100 cks. 30
Sydney, 6 bxs. 5 cs. 9
Pyridine
Dusseldorf, 24 cks. £235
Tar
Delagoa Bay, 30 dms. £5
Hamburg, 200 brls. 75
Helsingfors, 1,000 mlts. 613
Pt. Elizabeth, 200 30
Sydney, 50 cks. 6 25 61
Toluol
Antwerp, 4 dms. £39
Copper Sulphate—
E. London, 4 c. —
Pt. Elizabeth, 20 cs. £13
Cream of Tartar—
Auckland, { 5 kgs. / 4 cks. } £108
Melbourne, 2 t. 10 c. 189
Pt. Elizabeth, 4 18
Disinfectants—
Brisbane, 19 pks. £36
Melbourne, 20 cs. 57
Oporto, 4 16
Otago, 7 38
Sydney, 37 75
Wellington, 27 46
Glycerine—
New York, 15 t. 4 c. £450
Yokohama, 4 173
Manure—
Antwerp, 50 t. 10 c. £150
Dunkirk, 10 50
Durban, 17 16 216
Las Palmas, 11 10 50
Laudemeau, 125 1,100
Libau, 550 1,135
Lyttelton, 51 160
Memel, 700 2,025
Riga, 101 4 220
Rouen, 50 200
Nitric Acid—
E. London, 8 cs. £19
Potash—
Durban, 13 c. £14
Philadelphia, 11 43
Pt. Elizabeth, 6 6
Potassium Bicarbonate—
Sydney, 5 c. £5
Potassium Carbonate—
Sydney, 2 t 2 c. £50
Potassium Chlorate—
Melbourne, 5 c. £9
Potassium Cyanide—
Auckland, 7 t. 10 c. £840
Cartagena, 2 cs. 22
Delagoa Bay, 70 631
Fremantle, 4 407
Melbourne, 5 80 1,370
Sydney, 20 224
Potassium Prussiate—
Antwerp, 1 t. 2 c. £75
Lisbon, 6 23
Melbourne, 3 11
Yokohama, 10 41
Salts of Lime—
Brussels, 4 cs. £33
Saltpetre—
Bahia, 1 t. 2 c. £23
B. Ayres, 15 16
Napier, 12 11
Newport News, 27 10 516
Sydney, 2 44
Sheep Dip—
B. Ayres, 1,500 cs. £3,376
Durban, 100 dms. 41
Napier, 4 17
Pt. Elizabeth, 259 pks. 253
Singapore, 9 cks. 23
Soda—
Adelaide, 2 t. 5 c. £12
Montreal, 6 6
Soda Ash—
Bahia, 2 t. 17 c. £14
Sodium Bicarbonate—
Auckland, 4 t. £8
Barbadoes, 1 6
Durban, 10 c. 7
Pt. Elizabeth 6 4
Sulphur—
Pt. Elizabeth, { 4 t. 9 c. / 100 kgs. } £86
Sulphuric Acid—
Calcutta, 13 cs. £20
Pt. Elizabeth, 12 dms. 12
Superphosphates—
Mauritius, 25 t. £93
Tartaric Acid—
Bombay, 4 c. £27
Dunedin, 6 33
Madras, 2 14
Melbourne, 10 54
Washing Powder—
Sydney, 2 t. 14 c. £50

LIVERPOOL.

Week ending July 26th.

Acetic Acid—
Barbadoes 5 c. 1 q. £6
Copenhagen, 4 t. 5 83
Ammonia—
Tampico, 7 c. 2 q. £7
Vera Cruz, 15 14
Ammonium Carbonate—
Gothenburg, 10 c. 2 q. £16
Konigsberg, 9 13
Lisbon, 8 11
Marseilles, 10 15
Ammonium Muriate—
Genoa, 10 c. £10
Gothenburg, 14 13
Hiogo, 2 t. 10 51
Philadelphia, 18 14 2 q. 402
San Francisco, 1 5 26
Stockholm, 1 1 20
Sydney, 2 42
Ammonium Sulphate—
Las Palmas, 25 t. 5 c. £311
Teneriffe, 1 12
Basic Slag—
Cape Town, 22 t. 10 c. £36
Lyttelton, N.Z., 50 90
Natal, 100 212
Palermo, 48 87
St. Nazaire 147 10 221
Wellington N.Z. 30 54
Bleaching Powder—
Ancona, 10 cks.
Baltimore, 155
Bombay, 117 cs.
Boston, 432
Lisbon, 20
Naples, 18
New York, 20 20 brls.
Philadelphia, 53
Cambrai, 18 cs.
Genoa 92
Havana, 20
Leghorn, 121
Montreal, 18
New York, 49
Boracic Acid—
Boston, 5 brls. £19
Havana, 9 c. 13
Sydney, 1 t 27
Borax—
Antwerp, 10 t. 1 q. £180
B. Ayres, 5 c. 3 5
Brisbane, 2 10 40
Cardenas, 1 1 2 16
Delagoa Bay, 1 2 16
Havana, 9 2 8
Montreal, 3 5 56
M. Video, 6 2 6
Rotterdam, 12 15 3 219
Sagua la Grande, 1 1 2 16
Santiago, 9 8
St. John's, N'fd, 2 2 3 39
Calcium—
Sydney, 5 t. £12
Calcium Carbide—
Calcutta, 12 c. £18
Calcium Chloride—
Melbourne, 5 t. 1 c. £12
Montreal, 10 2 24
New York, 10 3 20
Rouen. 10 2 22
Sydney, 3 7
Castor Oil—
Montreal, 20 cs.
Caustic Potash—
Baltimore, 1 t. 19 c. £52
Cuidad Bolivar, 14 20
Hong Kong, 4 7
Sydney, 3 17 110
Vera Cruz, 4 11
Caustic Soda—
Alexandria, 50 dms.
Amsterdam, 9
Barcelona, 184 12 cks
Bari, 52
Bayreuth, 15
Bilbao, 30
Bombay, 253
Braila, 50
B. Ayres, 110
Calcutta, 181
Chicago, 10 brls. 20 bxs.
Corfu 100
Corinto, 7
Cuidad Bolivar, 10
Delagoa Bay, 150 7 bdls.
Fiume, 30
Funchall, 13
Galatz, 12
Gefle, 52
Genoa, 37
Gutujewsky, 200
Hamburg, 70
Hiogo, 162
La Guayra, 28
Marseilles, 80
Melbourne, 91
M. Video, 25
Naples, 30
N. Orleans, 100
Para. 50
Piræus 10
Puerto Cabello, 32
Salaverry, 32
Samarang, 27
San Francisco, 35
Santander. 50
Sourabaya, 60
Stettin, 51 brls,
Sydney, 47
Tampico, 51
Trieste, 23
Valencia, 15
Valparaiso, 5
Chemicals (*otherwise undescribed*)
Alexandria, 61 t. 10 c. £32
Antwerp, 3 9 2 q. 10
Cape Town, 16 3 5
Calcutta, 64 10 73
Catacola, 2 2 10
Havana, 9 1 8
Madras, 11 1,100
Malta 6 5 33
Melbourne, 7 12 2 109
Montreal. 20 cks. 23
New York, 20 19 3 370
Oporto, 2 9
Philadelphia, 48 17 1,230
Rosario, 1 4 2 23
Santander, 2 pks. 4
Seville, 1 2 2 q. 18
Sydney, 1 5
Valencia, 2 19 3 17
China Clay—
Baltimore, 100 cks.
Barcelona, 150 bgs.
Bombay, 250
Boston, 864
Calcutta, 250
Genoa, 100
Melbourne, 14
Vera Cruz, 40
Coal Products—
Alizarine
New York, 5 brls.
Alizarine Oil
Lisbon, 4 cks
Aniline Colours
Barcelona, 7 brls.
Galatz. 4 cs.
Hespeler, 5 kgs.
Lisbon, 2
Aniline Oil
Barcelona, 20 brls.
Boston. 5 dms.
Aniline Salt
Barcelona, 20 brls.
Boston, 20 cs,
Vera Cruz, 39 cks.
Carbolic Acid
Cape Town, 4 c. 3 c. £5
Hamburg, 5 t. 19 3 350
Havana, 9 40
Hiogo. 2 10 157
New York, 1 18 17
Philadelphia, 5 8 3 166
Rotterdam, 5 300
Singapore, 45 g. 6
Trinidad, 3 cs. 5
Vera Cruz, 1 15 c. 26
Creosote
Bonny, 250 cks.
Creosote Oil
Newport News, 250 brls.
Cresylic Acid
Alexandria, 5 t. 15 c. £80
Pitch
Demerara, 10 brls.
Tar
Bathurst, 20 dms.
Pt. Natal, 75
Copperas—
Madras. 8 t. £15
Copper Sulphate—
Amsterdam, 3 t. 2 q. £75
Bordeaux, 8 15 c. 3 205
Danzig 2 2 2 52
Ghent. 15 2 1 360
Konigsberg, 9 6 236
Madras. 10 12
Marseilles, 14 2 14
Montreal, 2 7 1 57
Newfairwater, 2 9 61
Tampico, 5 12 3 122
Cream of Tartar—
Havana, 1 t. £9
Disinfectants—
Bombay. 14 c. £18
Glycerine—
Antwerp, 4 c. 3 q. £10
Hamburg, 2 t. 120
Newport News 50 9 3 1,388
Rotterdam, 47 11 2 1 920
Vera Cruz, 3 3 15
Magnesia—
Bordeaux, 20 cs.
Troyes, 20
Magnesium Chloride—
Nantes, 10 t. 5 c. 3 q. £21
Magnesium Sulphate—
New York, 2 t. 5 c. £29
Manganese Ore—
Leghorn, 15 t.

Manure—
Gd. Carary, 2 t. 13 c. £8
Oxalic Acid—
New York, 11 c. £15
Paraffin Wax—
Havre, 20 cs.
Lisbon, 6 bxs.
Paint—
Amsterdam, 6 dms.
Anapala, 10 cs
Antwerp, 50
Aquila, 4 kgs.
Bathurst, 108 pks.
B Ayres, 30
Bombay, 15 dms.
Cadiz, 4 crts 16
Calcutta, 80
Callao, 50 2 5
Cape Town, 60
Colombo, 12 kgs.
Eten, 82
Genoa, 120
Gibraltar, 70 pks.
Havana, 2 cks.
Kingston, Ja., 130 2
Kobe, 200
Limon, 5
Lisbon, 56 4 pks.
Leanda, 2 40 dms.
Malta, 18 5 3 bxs. 26 cks.
Manaos, 20 3
New York, 20 20
Novo Redondo, 29 pks.
Para, 11 cks.
Pt Natal, 2
San Juan, 112 8
San Thome, 38
Santander, 1 brl.
St. John's, Nfd., 9
Suez, 30 dms.
Valparaiso, 451 27
Vera Cruz, 375
Wellington, 80
Painters Colours—
Alexandria, 23 brls 25 cks.
Algoa Bay, 11 pks.
Boston, 226
C. Town, 78
Calcutta, 5 cks.
E. London, 8
E. St. Louis, 6 18
E. Liverpool, 3 cs.
Genoa, 8 dms. 31 pks.
Guantanamo, 1 brl.
M. Video 24 crts
Maranham, 10 cks.
Pernambuco, 10
Puerto Cabello, 22
Rio de Janeiro, 23
Phosphorus—
Kobe, 15 cs. £116
Shanghai, 10 81
Phosphorus (Amorph.)—
Kobe, 15 cs £158
Potash—
B. Ayres, 16 c. 3 q. £72
Potassium Bicarbonate—
New York, 2 t. £9
Potassium Bichromate—
Antwerp, 2 t. 18 c. £89
Potassium Carbonate—
Baltimore, 2 t. 9 c. £53
Potassium Chlorate—
Gutujewsky, 3 t. £1,065
Hamburg, 22 10 c. 67
Rio de Janeiro, 4 13 133
Sydney, 5 130
Tampico, 1 31
Potassium Cyanide—
Cuidad Bolivar, 7 c. £51
Potassium Prussiate—
Genoa, 2 t. 1 c. £141
Potassium Silicate—
Amsterdam, 1 t. 6 c. 2 q. £10
Salammoniac—
Alexandretta, 1 t. £34
Philadelphia, 5 1 c 2 q. 167
Samsoun, 1 33
Trieste, 1 19 31
Salt—
Antwerp, 160 t. 3,100 sks.
Baltimore, 630
Barbadoes, 100 bgs.
Bombay, 50 cs.
Boston, 251 1,200
B. Ayres, 16 50 c. 40
Burutu, 341
Calcutta, 5 020
C. C. Castle, 6 5
Chittagong, 2,701
Christiania, 103 3
Demerara, 124 15
Egwanga, 40
Faroe Islands, 70
Ghent, 130
Gd. Bassa, 19 8
Havana, 10
Montreal, 797 2
N. Orleans, 510
New Plymouth, N.Z., 100
Newport News, 50
New York, 105
Old Calabar, 50
Opobo, 75
Orillia, 13 7
Para, 31
Sydney, 348
Wellington, 50
Salt Cake—
Antwerp, 120 t. £155
Hobson's Bay, 22 62
Terneuzen, 150 189
Sheep Dip—
B. Ayres, 13 t. 18 c. 2 q. £83
Soap—
Alexandria, 5 cs.
Algoa Bay, 1,275 bxs.
Anamaboe, 100
Antwerp, 127
Axim, 100
Beira, 385
Barbadoes, 1,060
Benin, 502
Bombay, 1,890 34
B. Ayres, 6
Calcutta, 68 500 bdls.
Canaria, 467
Cape Town, 1,991
C. C. Castle, 5
Cartagena, N.G., 2
Christchurch, 400
Conakry, 400
Constantinople, 50
Curacao, 120
Delagoa Bay, 150 7
Demerara, 450 2,850
Dominica, 40
Durango, 1
E. London, 204 45
Faroe Islands, 5
Ghent, 29
Gibraltar, 350 15 dms.
Gorontalo, 50
Grenada, 330
Greytown, 200
Half-Assinee, 75
Havana, 11
Johannesburg, 100
Karachi, 12
Lagos, 30
Macassar, 500
Malta, 91
Manaos, 1,250
Montego Bay, 50
Mossel Bay, 750 5 10 bdls.
N. York, 2 cks.
Old Calabar, 200 6 50
Opobo, 1,000
Para, 750
Pt. Natal, 50
Pt. Beira, 100
Porto Novo, 20
Pretoria, 12
Puerto Cortez, 50
Rangoon, 313 65
Reunion, 500
Rotterdam, 100 350
St. John, N.B., 375
St. John's N'fd. 40
St. Lucia, 101
St Thomas, 500 1
Savanilla, 7
Shanghai, 12,562
Teneriffe, 923
Tocopilla, 11
Trinidad, 330
Valparaiso, 1
Warri, 500
Wellington, 800
Yokohama, 6 cks.
Soda Ash—
Aalborg, 200 bgs.
Ancona, 100
Baltimore, 21 cks.
Barcelona, 41
Barranquilla, 150
Beyrout, 10
Bombay, 12
Boston, 23 tcs.
Brussels, 500
Calcutta, 179
Genoa, 500
Hiogo, 690
Johannesburg, 80 kgs.
Kobe, 257
Maranham, 378 brls.
Montreal, 112 bgs. 50 dms.
Piræus, 100
Puerto Cabello, 32
Rotterdam, 50
Sourabaya, 100 cks.
Toronto, 80 5
Zante, 50
Soda Crystals—
Alexandria, 53 brls.
Ancona 52
Boston, 560
Montreal, 100 bgs. 100 kgs.
Oporto, 12
Sodium Bicarbonate—
Amsterdam, 40 bgs.
Alexandria, 50 kgs. 50 dms.
Antwerp, 140 12 cks
Barcelona, 25 dms.
Bombay, 225
B. Ayres, 100 cks.
Calcutta, 1,615 5
Chemulpo, 20
Fiume, 40
Galatz, 50
Genoa, 165 61
Gutujewsky, 1900
Hamburg, 126 pks.
Hiogo, 200
Kobe, 250
Malaga, 70
Malta, 14
Mexico City, 10
M. Video, 30
Montreal, 100 bgs. 11 cks.
Naples, 80 kgs.
Odessa, 50
Singapore, 19
Smyrna, 10 dms.
Sodium Bichromate—
Preston, 3 cks.
Sodium Carbonate—
Amsterdam, 20 brls.
Sodium Naphthionate—
Barcelona, 6 cks.
New York, 6 t. 5 c. 2 q. £225
Sodium Prussiate—
Boston, 21 cks.
Sodium Sulphate—
Bombay, 8 cks.
Melbourne, 40 kgs.
Starch—
Germany, 30 bgs.
Nantes, 4 hds.
Sulphur—
Boston, 160 t. 4 c. £683
B. Ayres, 15 50
Calcutta, 6 28
Gothenburg 50 2 213
Sulphuric Acid—
Colombo, 2 t. 10 c. 3 q. £—
Manaos, 1 7
Sumac Extract—
Boston, 100 cks.
Superphosphates—
Charlotte Town, 20 t. £50
Stettin, 1,030 2,360
Varnish—
Antwerp, 6 cks.
Bilbao, 1
Cartagena, 6 cs.
Genoa, 6 9 pks.
Li bon, 1
Santander, 10 brls.
Valparaiso, 34 dms.
White Lead—
Calcutta, 280 kgs.
Johannesburg, 40
Montreal, 20 cks.
Pt. Natal, qty.
Zinc Chloride—
Bombay, 11 t. 11 c. 1 q. £175
Montreal, 11 6 74
Oporto, 4 14 82

MANCHESTER.

Week ending July 26th.

Ammonium Carbonate—
Montreal, 40 kgs
Bleaching Powder—
Montreal, 40 cks.
Sherbrooke, 50
Chemicals *(otherwise undescribed)*
Basle, 4 cks. 12 kgs.
Montreal, 50 brls. 70 tcs. 1 cs.
Quebec, 24½
Coal Products—
Aniline Oil
Belgium, 1 dm.
Carbolic Acid
Ludwigshafen, 23 cks.
Naphthylamine
Germany, 28 cks.
Russia, 28 bgs.
Pitch
Belgium, 252 t. 15 c.
Holland, 43 5
Pyridine
Germany, 2 dms.
Copperas—
Montreal, 100 brls.
Chrome Oxide—
Germany, 1 ck.
Farina—
Magog, 5 cks.
Gamma Acid—
Germany, 12 cks.
Glue—
Germany, 10 cks.
Holland, 12
Logwood Extract—
Toronto, 5 cs.
Nitrous Oxide Gas—
Copenhagen, 1 cs.
Palm Oil—
Holland, 2 cks.
Salt—
Montreal, 250 t.
Soap—
Montreal, 10 cs.
Sodium Naphthionate—
Switzerland, 15 cks.
Tanning Extracts—
Cornwall, 50 cks.
Zinc Sulphate—
Montreal, 5 cks.

HULL.

Week ending July 22nd.

Alkali—
Bremen, 5 cks.
Riga, 20
Ammonium Sulphate—
Antwerp, 500 bgs.
Basic Slag—
Libau, 1,360 bgs.
Caustic Soda—
Harlingen, 17 dms.
Chemicals *(otherwise undescribed)*
Abo, 4 cks.
Amsterdam, 25 8 btls.
Antwerp, 3 cs.
Copenhagen, 70
Christiania, 214 slbs.
Gothenburg, 23 272
Hamburg 12 330
Helsingfors, 6
Norrkoping, 1 pk.
Odessa, 26 33 brls.
Riga, 60
Rotterdam, 47 72 cs.
Stettin, 9 5
Stockholm, 2
Coal Products—
Creosote
Christiania, 5 brls.
Copenhagen, 40 cks.
Hamburg, 6
Konigsberg, 15
Naphthaline
St. Petersburg, 403 bgs.
Pitch
Antwerp, 125 t.
Helsingfors, 100 cks.
Tar
Amsterdam, 10 cks.
Christiania, 3
Copenhagen, 22
Drontheim, 3
Dunkirk, 25
Hamburg, 1 brl.
Helsingfors, 50
Cottonseed Oil—
Amsterdam, 17 t. 2 c.
Bremen, 2 12
Christiansand, 1 15
Dunkirk, 25
Gothenburg, 4 19
Hamburg, 19 12
Harlingen, 5
Rotterdam, 1 7
Stockholm, 2 10
Dyestuffs *(otherwise undescribed)*
Helsingfors, 3 cks.

Glue—
Hamburg, 50 bgs.
New York, 9 cks.

Linseed Oil—
Amsterdam, 3 t. 3 c.
Christiania, 1 15
Constantinople, 3 9
Copenhagen, 2 6
Drontheim, 5 18
Ghent, 7
Hamburg, 4 15
Rotterdam, 4 19

Paint—
St. Petersburg, 1 cs.

Painters' Colours—
Abo, 3 cks. 3 dms.
Amsterdam, 4 16
Antwerp, 4 15 cs. 25 / 40 pks.
Bremen, 161
Christiania, 1
Constantinople, 260
Copenhagen, 9 1 24 dms.
Drontheim, 12 1
Ghent, 1
Gothenburg, 1
Hamburg, 11 1
Harlingen, 1
Konigsberg, 1 2
New York, 75
Riga, 1
Stettin, 27
St. Petersburg, 4
Stockholm, 9 4
Wyburg, 1

Soap—
Amsterdam, 7 cs.
Rotterdam, 20

Starch—
Odessa, 150 cs.

Tallow—
Amsterdam, 20 pks.
Antwerp, 11 cks.
Gothenburg, 5
Harlingen, 15
Wasa, 74

Varnish—
Amsterdam, 1 cs.
Antwerp, 1 ck. 2
Gothenburg, 1
Hamburg, 2
Helsingfors, 1
Stettin, 8

GLASGOW.

Week ending July 27th.

Alumina Sulphate—
Dunedin, £58 10 s.

Ammonium Carbonate—
Stockholm, £92

Ammonium Sulphate—
Barcelona, 10 t. 2 c. 2 q
Rotterdam, 105 5
U.S.A., 25 8 3
Valencia, 25 13 1

Bleaching Powder—
Calcutta, 95 t. 7 c.
Dunedin, 2 8 3 q.
N. Zealand, 7 13 3
Rio de Janeiro, 0 1 1

Boracic Acid—
Hiogo, £64

Borax—
Adelaide, £78
B. Ayres, 101 5s.
Johannesburg, 31
Rotterdam, 16

Castor Oil—
Bergen, 3 t. 4 c. 1 q.

Chemicals *(otherwise undescribed)*
Calcutta, £41

Coal Products—
Alizarine
Lisbon, £13 1 8
Carbolic Acid
Rotterdam, £110
Creosote Oil
France, £55
Lisbon, 590
Russia, 50
Pitch
Alexandria, £20 9s.
Aviles, 91 1 16
Canada, 124
Halifax, 74
Hamburg, 13 t. 32
Madras, 74 12
Russia, 270
Tar
Calcutta, £363 10s.
Canada, 293
Danzig, 24 t. 10 c.
Russia, 412 10
St. Petersburg, 262 10
Tar Oil
Rouen, £30
Tar and Pitch
Bombay, £38

Colours—
Canada, £40
Rio de Janeiro, 39

Dextrine—
U.S.A., £365

Dyestuffs *(otherwise unaescribea)*
Rio de Janeiro, £122

Dyestuffs—
Extract
U.S.A., £87
Fustic Extract
Calcutta, £60
Indigo
Rio de Janeiro, £127
Sumac
Rio de Janeiro, £27

Gelatine—
Canada, £70
U.S.A., 1,04

Iodine—
Rotterdam, £250

Lead Acetate—
Bombay, £98

Lead Nitrate—
Rotterdam. £100

Linseed Oil—
Alexandria, 5 t. 15 c. 2 q.
B. Ayres, 2 18
Canada, 4 6 2
Dunedin, 5 9 1
Gisborne, 1 4
Havana, 3 5 2
Hong Kong, 1 2 1
Pt. Said, 2 5 2
Rio de Janeiro, 2 2
Singapore, 2 9

Litharge—
Bombay, £26

Logwood Extract—
Canada. £160
Portugal, 33 15
Stockholm, 8 10
Victoria, 44

Magnesia—
Adelaide, £21

Magnesium Sulphate—
Montreal, £51 11s.

Manure—
U.S.A., 20 t. 8 c. 3 q.

Paint—
Adelaide, £78 14s.
Bangkok, 302
Bergen, 5 c. 1 q.
Bombay, £42
Havana, 43
Singapore, 41
Valparaiso, 40

Painters' Colours—
Alexandria, £551
Auckland, 378
B. Ayres, 98
Calcutta, 334 13s.
Canterbury, 152
Cape Town, 294 10
Colombo, 157
Dunedin, 495 10
Pt. Said, 22 10
St. John's, N'fd., 31 13

Paraffin Wax—
Barcelona, £145
Bordeaux, 160
Cape Town, 98
Paris, 110
Portugal, 38
Russia, 33
Stockholm, 80
Valencia, 36 13s.

Potassium Bichromate—
Alexandria, £91
Barcelona, 380
Bombay, 185
Danzig, 8 c.
Lisbon, 71
Montreal, 132
Nantes, 22
New York, 447
Paris, 406
Philadelphia, 308
Portugal, 27
Rotterdam, 56
Rouen, 443

Potassium Cyanide—
Delagoa Bay, £315
U.S.A., 443

Recovered Manganese—
Rotterdam, £120

Red Lead—
B. Ayres, £98
Bombay, 56

Saltpetre—
Canada, £27

Sheep Dip—
B. Ayres, £152
Napier, 150

Soap—
Alexandria, 4 c. 2 q.
Bombay, 3 t. 8
Calcutta, 2 6 1
Colombo, 11 1
E. London, 16 10
Hong Kong, 1 8 3
Queenstown, 1 5

Sodium Arseniate—
Lisbon, 1 t. 12 c. 1 q.

Sodium Bichromate—
Bombay, 1 t. 13 c. 2 q.
Bordeaux, 4 19 2 20 lb.
Nantes, 3 12
New York, 3 2 1
Rouen, 35 4

Starch—
Lisbon, £28
Rotterdam, 109

Tallow—
Rotterdam, 11 t. 2 c.

Tartar—
Pt. Lyttelton, £22

Tin Crystals—
Lisbon, £73

Varnish—
Christiania, 17 c.
Hong Kong, £17
Melbourne, 26

White Lead—
Johannesburg, £48
Melbourne, 280
St. John's, N'fd., 25
Wellington, 200

Zinc Oxide—
U.S.A., £51

TYNE.

Week ending July 22nd.

Alkali—
Amsterdam, 19 t. 19 c. 1 q.
Antwerp, 5 11 1
Gothenburg, 7 2
Rotterdam, 1 11 2

Alum Waste—
Aalborg, 20 t. 14 c. 2 q.
Copenhagen, 20 14 2

Antimony—
Rotterdam, 12 t.

Arsenic—
Gothenburg, 17 c. 3 q.

Barium Binoxide—
Antwerp. 10 t. 14 c. 3 q.
Hamburg, 7 12 1
Rotterdam, 5 7 3
Rouen, 10 18

Barium Carbonate—
Hamburg, 125 t.

Bleaching Powder—
Aarhuus, 1 t. 5 c. 1 q.
Amsterdam, 9 6 1
Antwerp. 30 1
Christiania, 5 1
Gothenburg, 25 6 3
Hamburg, 5 2 1
Rotterdam, 30 17 2
San Francisco, 37 12 1

Caustic Soda—
Antwerp 14 t. 15 c. 3 q.
Christiania, 2 18
Copenhagen, 1 16
Genoa, 37 8 2
Gothenburg, 10 3
Hamburg, 19
Helsingfors, 3 12
San Francisco, 14 10
Stavanger, 1 9

China Clay—
San Francisco, 50 t. 13 c. 1 q.

Copperas—
Copenhagen, 2 t. 13 c.

Dyestuffs *(otherwise undescribed)*
Helsingfors, 5 c. 2 q.

Fluor Spar—
Gothenburg, 52 t. 10 c.

Litharge—
Copenhagen, 1 t. 14 c.

Magnesia—
Antwerp, 15 c. 2 q.
Genoa, 560 lbs.

Oxalic Acid—
Genoa, 3 c.

Paint—
Antwerp, 1 t.
Christiania, 5 c.
Copenhagen, 15
Hamburg, 2 10

Red Lead—
Amsterdam, 2 t. 15 c. 1 q.
Christiania, 4 15 3
Copenhagen, 6 2 2
Genoa, 3 14
Gothenburg, 28 7 1
Hamburg, 8 2
Helsingfors, 5 2
Leghorn, 2 14
Lisbon, 10 2
Rotterdam, 5 28 1
Stavanger, 2 14 2

Salammoniac—
Gothenburg, 1 t. 3 c. 2 q.

Salt—
Helsingfors, 25 t.

Soda—
Amsterdam, 5 t. 4 c. 2 q.
Christiania, 14 14
Helsingfors, 4 1 1
Rotterdam, 25 7 1

Soda Ash—
Copenhagen, 11 t. 3 c.
Helsingfors, 79 19
Lisbon, 15 1

Sodium Hyposulphite—
San Francisco, 10 t.

Sodium Hydrosulphite—
San Francisco, 16 t. 14 c. 2q.

Sodium Sulphate—
Antwerp, 196 t. 15 c. 2 q.
Frano, 265
Gothenburg, 200
Hernosand, 263

Sulphur—
Gothenburg, 110 t.
Sannesund, 350

Tallow—
Genoa, 3 t. 2 c. 3 q.

White Lead—
Copenhagen, 10 c. 3 q.
Helsingfors, 6

GOOLE.

Week ending July 19th.

Chemicals *(otherwise undescribed)*
Amsterdam, 10 cks.
Boulogne, 1 16 dms.
Ghent, 8

Coal Products *(otherwise undes.)*—
Antwerp, 1 ck.
Boulogne, 6 1 cs.
Ghent, 3 1 dm.
Hamburg, 3 2
Rotterdam, 9 2 19

Coal Products—
Benzol
Hamburg, 8 dms.

Manure—
Hamburg, 645 bgs.

Painters' Colours—
Antwerp, 1 ck.
Ghent, 1
Rotterdam, 11

GRIMSBY.

Week ending July 22nd.

Alkali—
Rotterdam, 5 cs.

Caoutchouc—
Esbjerg, 1 cs.
Malmo, 1 pcl.

Chemicals *(otherwise unaescribed)*
Hamburg. 5 kgs.

Coal Products *(otherwise undes.)*—
Dieppe, 106 cks. 6 pks

Colours—
Esbjerg, 9 dms.
Malmo, 23 cks.

Manure—
Hamburg, 2,001 bgs.

Painters' Colours—
Antwerp, { 11 kgs. / 18 cks. 11 pks.
Hamburg, 4 4 cs. 3 dms.
Rotterdam, 2 pks.

PRICES CURRENT.

WEDNESDAY, Aug. 2, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric ,, per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	0	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	2	6
,, ,, (grey) Hull ,,	12	0	0
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,,	0	0	4
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	42/6 to 65/-		
Bleaching Powder, 35 % nett ,,	4	15	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	9
,, 50/90 ,,	0	0	10
Carbolic Acid (crude 60°) ,,	0	2	2
,, (crystallised 40°) per lb.	0	0	7¾
,, (liquid 95/97%) per gallon	0	1	1
Creosote (ordinary) ,,	0	0	4
,, (filtered for Lucigen light) ,,	0	0	4¼
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	10	0
Solvent Naphtha, 90% at 160° per gallon	0	1	1
Copper per ton	75	17	6
,, Sulphate ,,	24	10	0
,, Oxide (copper scales) ,,	57	0	0
Glycerine (crude) 80% ,,	26	0	0
,, (distilled S.G. 1250°) ,,	45	0	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	15	12	6
,, Litharge Flake (ex ship) ,,	17	0	0
,, Acetate (white ,,) ,,	22	0	0
,, ,, (brown ,,) ,,	17	15	0
,, Carbonate (white lead) pure ,,	18	10	0
,, *Nitrate* ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) per ton	4	17	6
,, ,, (grey) (ex ship) ,,	7	15	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	17	10	0
Linseed ,,	22	0	0
Stearine ,,	26	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	5	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	23	10	0
,, ,, ,, 75/80 % ,,	18	10	0
,, Potash Hydrate Liquid 50 % ,,	12	0	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	7⅞
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	8	15	0
Silver (metal) per oz.	0	2	3¾
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	0	0
,, ,, (Soda Crystals) ,, ,,	2	10	0
,, Acetate (ex-ship) ,,	12	15	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¼
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	8	0	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	7	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	7	7	6
,, ,, (60 % Caustic Soda) ,, ,, ,,	6	7	6
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	3	12	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	9
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate ,, per lb.	0	0	6
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % ,, per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	4	0
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide (crystals) ,,	6	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4½
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	6	15	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	25	10	0
Tin Crystals per lb.	0	0	10
,, English Ingots per ton	145	0	0
Zinc (Spelter) ,,	25	5	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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Notices.

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Readers are invited to forward items of intelligence, or cuttings from local newspapers, of interest to the trades concerned.

Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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Trade Advertisements, Announcements in the Directory Columns, and all Advertisements not prepaid, are charged at the Tariff Rates, which will be forwarded on application.

Advertisements intended for insertion in the curren week's issue should reach the office by **Thursday morning** at the latest.

THE AMERICAN IRON INDUSTRY.

MANY alarming rumours have been flying about during the past six months, all of which bore reference to the same thing—the possible supremacy of the United States in the manufacture of iron and steel. The review of the past year, which has just been issued, now supplies us with figures in place of rumours.

Before dealing with a few of these, we should like to call attention to the fact that the building of the Atbara bridge in the Soudan, as referred to recently in our columns (No. 636, p. 70), was also made the basis of many unfavourable comparisons between this country and the States. It is only fair to state, therefore, that the correspondence which led to the order passing into the hands of the Pencoyd Company has been published. It was not a question of price, but of time. Twelve months, and even two years, were talked of in this country. The Pencoyd people said six weeks. It is stated that our delay was due to all shops being full up with work. If this was the case there is no cause to grumble about the job going abroad. You cannot eat your cake and have it too. But could we have done the task in six weeks if all the shops in England had been slack? One point is particularly noteworthy, and that is the quality of the work done.

When the authorities in Egypt pressed for the American firm's offer being accepted, Colonel Western of the War Department said plainly that "this bridge could not be built without false work,"—in six weeks, of course. Pressure from the Soudan prevailed, however, and the contract was placed. What was the result? Colonel Western's prophecy was falsified in every respect. The time contract was more than kept, and the "workmanship was very good," and "the character of the work was very satisfactory." This general testimony is supported by details which show that all chord sections, top and bottom, were milled accurately to the lengths called for, within one-fiftieth of an inch, the allowed variation. All pin distances were bored also accurately to lengths called for, centre to centre, within one-fiftieth of an inch; pins were turned exactly to diameter called for, and pin holes to pin diameters plus one-fiftieth of an inch. Shoe plates were planed for bearings on bed plates, and planed also for clearance at the mitre joints with end posts. All bottom chord splice plates were milled. All floor beam and stringer webs were milled to remove sheared edges and flange angles of floor beams and stringers were milled to lengths called for. All rivet holes for top and bottom chord splices were reamed to cast-iron templates, and chords bearing the same mark were interchangeable. Where finish was required for the transmission of stress, or was otherwise desirable, it was done.

We will leave our readers to form their own opinions upon the numerous conjectures that these statements must give rise to, and will return to the figures concerning the iron industry.

Beyond a doubt the production of iron and steel in the States during the past eighteen months has been enormous. It has been a record period for pig iron and all kinds of steel. Naturally, the imports of these products have undergone a shrinkage, the only exception being tinplates. By the curtailment of the iron and steel imports Great Britain has been a heavy loser. It is only a matter of a few years since America was our chief customer. Now she is not only no longer a customer, but she actually sells to Great Britain in our own home markets as many tons of iron and steel as we sell to America.

At present the amount of by-products recovered is small, in fact only a few thousand tons of sulphate of ammonia, and very little else; but with such phenomenal developments in their pig iron and steel production, it can only reasonably be expected that before very long the chemical market will begin to feel the effect of this remarkable activity. The enterprise that can bring the American iron industry to the front as it has in the last few years is not of the kind that will let the by-products go to waste for long.

To some these facts may be depressing, but rather should they cause careful introspection into our own methods, and breed a spirit of increased doggedness and determination to keep the British iron and steel industries to the fore. One thing is certain—they can no longer keep themselves there by the strength of mere reputation, but that is no reason why they should not be kept there by the same tactics that brought them there.

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for June, 1899, as compared with June, 1898 :—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	12,705	21,077	3,851	6,588
Sweden and Norway	10,114	13,026	2,220	3,155
Germany	14,070	6,648	3,406	2,415
Holland	4,843	9,237	1,035	2,349
France	3,706	2,635	1,260	904
Spain and Canaries	20 507	23,297	6,815	7,190
Italy	23,427	26,938	7,421	7,959
United States	67,656	36,566	13,565	8,452
Australasia	21,487	28,250	6,182	8,431
British North America	14,226	14,722	4,238	3,365
Other countries	86,056	132,249	25,485	38,274
Total	278,797	314,645	75,478	89,082

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	76,207	73,152	19,593	16,550
Other countries	32,838	39,455	9,920	11,814
Total	109,045	112,607	29,513	28,364

Messrs. Hugh Wallace & Co., Ltd.—This firm advises us that the fire at their Crayford works, reported last week, will not in any way interfere with the execution of orders.

Destructive Fire at Leith.—Fire broke out on Thursday morning in Wills's Asphalt Stores, Leith, and, getting a firm hold of the building, it attacked the extensive works of Hawthorns, Ltd., shipbuilders. So serious were matters that the Edinburgh brigade were called upon for assistance. Before they arrived the fire had spread to the Central Biscuit Factory and the pattern works of Hawthorns. Wills's premises were gutted and the factory was damaged.

Correspondence.

*** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

ENGLISH ENTERPRISE AT RHEINAU.

(To the Editor of the Chemical Trade Journal).

Sir,—Your remarks on Mannheim and English Enterprise have evidently aroused a considerable amount of interest at home and abroad, and we therefore ask you to kindly allow us to clear away some possible ground of misapprehension.

The Sunlight Soap Co. and the Diamond Match Co., of Chicago and Liverpool, are located not at Mannheim, but Rheinau, about five or six miles further up the Rhein. Rheinau, having only sprung into existence within the last three years is frequently referred to by the name of its parent town Mannheim, that being the nearest well known centre, but it is important to note the difference as both places are open to receive new enterprise.

Rheinau is the property of a wealthy company (known as "Rheinau G.m.b H."), which has built a deep-water river harbour, Rheinau-Hafen, a mile and a half long and laid out a large estate solely for manufacturing or other industrial purposes. It is therefore from its inception free from the harrassments and restraints of an already existing town, and concessions are more easily obtained here than at many other German towns. Every block laid out for industrial purposes is provided with railway sidings and canalisation, ample water supply, electricity for power and light, thus many questions which give rise to difficulties in foreign countries have been settled and smoothed away beforehand.

The gentlemen at the head of the Rheinau Company have lived for years in England and elsewhere abroad. They are therefore quite familiar with our English ways, and (we may flatter ourselves) it is on this account they give such a friendly welcome to English works; intercourse with them is easy and pleasant for English manufacturers. They are not only willing to assist with their counsel and advice any who contemplate erecting works at Rheinau Hafen, but they are prepared to find capital for new enterprises. We have personally inspected the place and we must confess we were greatly struck by its unique situation and the extraordinary facilities it offers alike for manufacturing and transport. The enterprising manufacturer who decides to carry the war (industrially) into the enemies' camp will find no better field for his operations.

As representatives of the Rheinau G.m.b.H. for the United Kingdom we should be pleased to give any information your subscribers may desire on the subject.

Yours faithfully,

Manchester, August 4th, 1899. F. S. Bayley & Co.

EAST INDIA INDIGO.

FROM cables just to hand, Messrs. Millward and Co. report that the Calcutta brokers' official estimates for the new crop are as follows :—Lower Bengal, 15,000 maunds, against an actual yield last season of 22,500 maunds; Behar, first cutting 40,000 and second cutting 13,000, against 75,000; Benares and North-west Provinces, 35,000, against 26,700; total, 103,000 maunds, against 124,200 maunds. Last season the outturn proved to be almost identical with the estimates. If the present forecast is equally successful it will mean that the crop will be from 25,000 to 30,000 maunds less than the average, and, with two exceptions, the smallest for the last twenty years. The chief reason for the deficiency is the excessive rainfall in the principal indigo-growing districts, but it is also partially owing to planters finding recent prices unremunerative and discontinuing cultivation, a tendency likely to be further developed by the prospective partial failure of the present crop. The weather has now improved, and prospects are reported unchanged in Behar, but the outlook is somewhat brighter in the North-west Provinces. London stocks are now 11,670 chests, against 16,333 in 1898 and 20,625 in 1897.

New Julia Nitrate Company.—In the Court of Appeal this week the Master of the Rolls and Sir Francis Jeune had again before them an application in the matter of the New Julia Nitrate Company by way of appeal from an order of Mr. Justice Wright.—Mr Crump, Q.C., who appeared in support of the appeal, said the application was in effect to restrain the liquidator of the company from carrying out a scheme of arrangement for the sale of the property of the company to a new company to be formed.—The Master of the Rolls, in giving judgment, said he did not think they ought to interfere in this case. The motion ought not to succeed, and, in his opinion, must be dismissed. The President of the Probate Division concurred.—The motion was therefore dismissed, with costs.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Extracting Zinc from Complex Ores containing Lead. T. P. Sims and J. S. Merry. 15,157. July 24.

Indiarubber Substitute from Linseed Oil. J. E. Bedford, C. S. Bedford, and F. Reddaway. 15,163. July 24.

Retorts for the Destructive Distillation of Shale. W. Young and J. Fyfe. 15,238. July 25.

Manufacture of Gutta-percha like Substance. A. Gentzsch. 15,255. July 25.

Manufacture of Calcium Carbide or Magnesium Carbide. C. J. Wollaston. 15,306. July 26.

Manufacture of Varnish. A. P. Bjerregaard. 15,310. July 25.

Removing Tin from Tinned Scrap. H. R. S. Coleman and G. Cruickshank. 15,402. July 27.

Process for Coking Coal and Lignite. H. Schild. 15,403. July 27

Electrolytic Production of Chemically Pure Cupric Sulphate and Copper. E. Frenot. 15,438. July 27.

Treatment of Sewage and Apparatus therefor. S. I. Adams. 15,457. July 27.

Improvements in Filters for Filtering Liquids. W. Reeves and The Reeves Patent Filters Co., Ltd. 15,508. July 28.

Improvements in Filters for Filtering Liquids. W. Reeves and The Reeves Patent Filters Co., Ltd. 15,509. July 28.

An Improved Process of and Apparatus for Manufacturing Gas. W. H. Laird. 15,511. July 28.

Clarifying Spent Liquor from Sulphate of Ammonia Plant. W. Diamond. 15,543. July 29.

Manufacture of Cyanides. J. Snodgrass. 15,545. July 29.

Manufacture of White Gelatine. F. Huff. 15,554. July 29.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

A New or Improved Process or Apparatus for Drying, Cooling, and Feeding or Conveying Superphosphate and other Materials. A. G. Brooke, 55, Chancery-lane, W.C. (communicated by Dr. F. Lorenz, successor to Dr. J. Lutjens, Hanover). Eng. Pat. 10,204. May 15, 1899.

The superphosphate obtained according to patent 9,260/99 (*C.T.J.* 364, p. 35) contains about 14% moisture. To reduce this to the more customary 10%, the superphosphate is passed down an inclined trough and exposed to heated compressed air. The trough is divided into two compartments by a perforated diaphragm. The superphosphate is fed on to the diaphragm, and the hot air is introduced on the under side, thus drying the superphosphate and also carrying it forward. At the end of the first trough, the material drops into a second one, in which cold compressed air is used. By this treatment, a dry, fine superphosphate, which suffers very little, if any, chemical retrogression of phosphoric acid, is obtained. There are two figures.

Improvements in or Relating to the Utilisation of the Gases issuing from Blast Furnaces and from Coke Ovens. E. D. y. Crooke, Almeda Mazarredo, Bilbao, Spain. Eng Pat. 23,079. November 2, 1898

Blast furnace gases, which are poor in hydrocarbons and calorific power, are used instead of a portion of the coke oven gases for heating the ovens, leaving the whole of the coke oven gases, rich in hydrocarbons and calories, to be used for producing motive power. The blast furnace gases are heated to about 900° C. in special regenerators, and the air, used to support combustion, is also heated, the hot coke oven gases being used for heating both the air and blast furnace gases. There are four figures.

Improvements in the Manufacture of Per-oxides. H. Blumenberg, White Plains-road, Wakefield, Bronx, N.Y., U.S.A. Eng. Pat. 19,446. September 13, 1898.

The preparation of peroxide of lead is given as an example of this method. A plate of lead is placed on the bottom of an electrolytic cell and connected to the positive pole. On this a layer of litharge is placed. A solution of an alkaline sulphate or dilute sulphuric acid is added, and a perforated electrode suspended in it, above the litharge, this electrode being coupled to the negative pole. On passing the current, the electrolyte is decomposed, the oxygen combines with the litharge, and the hydrogen collects on the suspended electrode and escapes. There is one figure.

Improved Process for the Purification of Anthracene. A. G. für Theer und Erdöl Industre and Dr. G. Kraemer, 7, Flottwellstrasse, Berlin. Eng. Pat. 7,868. April 4, 1899.

Crude anthracene is melted in a well insulated kettle and allowed to cool slowly, when carbazole and anthracene crystallise out first, leaving phenanthrene liquid, which is drawn off. The crystals are transferred to an iron kettle provided with a stirer, and re-melted, when a hot 50 per cent lye of caustic potash is added. This removes the carbazole, but care must be taken that the temperature does not exceed 260° C., at which temperature potassium carbazole is decomposed. On standing, the contents of the kettle separate into a layer of mobile, fused potassium carbazole, on which is a layer of anthracene. The potassium carbazole is drawn off and the residue treated with benzole to remove the small amount of phenanthrene left in the anthracene. The benzole is separated by pressing, or in a centrifugal, leaving a 90% anthracene.

The Treatment of Fecula and other Amylaceous Matters by Means of Alkaline Chlorites or Hypochlorites for the Purpose of Obtaining a Gummy and Gelatinous Product. C. Brueder, Arches (Vosges), France. Eng. Pat. 17,650. August 16, 1898.

A mixture of fecular in water is treated with a solution of potassium or sodium hypochlorite. After standing and decanting, the sediment is allowed to dry, and is heated to 50° or 100° C. for some hours, when a white product, like gelatine, and soluble in water, is produced. It is imperative that the starches used be neutral, any acidity being corrected with sodium peroxide. On mixing the product with water and heating, a glue is formed, which thickens for a few moments and then becomes fluid.

A Substitute for Glass. G. Pelmear, 20, Fife-street, W. H. Cummings, 24 Wilton-street, and W. R. Megson, Hazeldene, Woodlands-road, all of Middlesbrough. Eng. Pat. 12,885. July 16, 1898.

Sheets of celluloid, either flat or moulded to various shapes, are described as substitutes for glass. Particulars are given of numerous methods of fixing, which are substantially the same as for glass. The patent is of no chemical interest.

MINERAL AND CHEMICAL PRODUCTION OF U.S.A.

WE are indebted to the "Engineering and Mining Journal" of New York for the following comparative statement, which we have condensed somewhat:—

MINERAL AND CHEMICAL PRODUCTS OF THE UNITED STATES.

Products.		1897. Quantity.	1897. Value at Place of Prod'ction. *a*	1898. Quantity.	1898. Value at Place of Prod'ction. *a*
			Dols.		Dols.
Alum	Sh. T.	15,456	463,680	18,791	563,730
Aluminium sulphate	Sh. T.	46,355	1,158,875	56,663	1,416,675
Ammonium sulphate	Sh. T.	3,111	136,884	3,589	179,450
Calcium carbide	Sh. T.	1,925	134,750	(*b*)	(*b*)
Carborundum	Lb.	1,242,929	153,812	1,594,152	151,444
Cement, slag	Brls.	40,000	60,000	157,662	235,721
Coke	Sh. T.	12,768,891	23,203,920	15,897,797	30,505,563
Copperas	Sh. T.	15,702	78,660	11,285	58,105
Copper sulphate	Lb.	29,397,575	1,131,746	27,057,860	922,673
Crushed steel	Sh. T.	324	51,824	330	46,200
Graphite, artificial	Lb.	162,382	10,149	185,647	11,603
Lead, white *z*	Sh. T.	105,804	9,522,360	93,172	9,391,738
Lead, red	Sh. T.	7,798	744,709	9,160	916,000
Lead, orange mineral	Sh. T.	477	76,320	541	108,200
Litharge	Sh. T.	8,691	773,490	7,460	710,192
Mineral wood	Sh. T.	5,617	61,494	6,560	70,314
Soda, manufactured, *y*	M. T.		3,912,257	..	4,080,651
Venetian red	Sh. T.	2,196	40,790	3,270	64,570
Totals	..	..	41,718,420	..	49,432,819

NOTES—*a* Except where otherwise specified. *b* Not enumerated. *h* Barrels of 400 lbs. *r* Reduced to basis of 58 per cent. ash. *z* Includes a comparatively small amount made directly from ores. Abbreviations: Sh. T., short tons (2,000 lb.); M. T., metric tons (2,204·6 lb.)

NITRATE STATISTICS.—The Permanent Nitrate Committee, in their public statistical circular for August, state the following statistical position:—(1.) Total exports to Europe, July, 1,705,000 qtls.; loading for Europe, 1st August, 1,533,000 qtls. (2.) Imports, Europe, July, 79,250 tons. (3.) Deliveries, Europe, July, 56,740 tons. (4.) Visible supply, Europe, 1st August:—Stocks and afloat, 349,770 tons.

USEFUL SAFETY APPLIANCES.

THE advent of the Workmen's Compensation Act naturally turned the thoughts of employers to all possible forms of safety appliances, especially when there is such an agitation in the pottery, glass, lead, chemical, and enamelling trades; and inventive genius has not been behindhand in preparing a number of articles for the general protection of workers. Some of these are briefly described in the following notes, full particulars of which can be obtained from Messrs. Wallach Bros., of 57, Gracechurch-street, London, who are making a specialty of appliances of this kind. Most of their specialties were seen at the Greater Britain Exhibition, Earl's Court, London, where they exhibited their patent aluminium respirator, which is at once the lightest and

Fig. 1

Fig. 2.

most comfortable respirator in the market. It is constructed of aluminium, and its weight is about *one* ounce, while owing to the ingenious way in which the respirator has been constructed it will not cause the slightest inconvenience to the wearer, who is able to breathe with the greatest comfort and without the respirator getting hot. This has been the great objection to most of the respirators which have been so far constructed. The filtering medium, which may be cotton wool or other absorbing medium (treated in different ways according to the requirements), can be exchanged at a moment's notice, and without any expense, and while the respirator is being worn.

In Fig. 1 we illustrate a safety guard and respirator with sieve, which can be cleaned. Fig. 2 is an aluminium respirator, which can be fitted with rubber or pneumatic face cushions as may be desired. Fig. 3 shows a special form for chemical works, fitted with special valves for

Fig. 3.

Fig. 4.

expired air. Fig. 4 represents a special respirator tube and inhaler, suitable for lead burners and men engaged in soldering.

The patent pneumataphor (illustrated in Fig. 5) has already been adopted by many chemical works, and is considered to be the most perfect apparatus for breathing in poisonous atmospheres yet constructed. Over 600 apparatus have been supplied already, and in not a single case has the apparatus proved a failure. The supply of oxygen will last from one-and-a-half to three hours, according to the size of apparatus. The construction of the pneumataphor is very simple. The breathing bag contains one or two oxygen cylinders, each of which holds a supply of oxygen at a pressure of 100 atmospheres. In the bag is further enclosed a bottle containing caustic soda and some loofah pads. The great efficiency of the pneumataphor is derived from the arrangement which enables the expired air (which contains a large percentage of carbonic acid gas) to be purified by the caustic soda and thus rendered fit for breathing over again.

Among other important specialties of this firm are head, face, and hand protectors, fire and acid-proof garments, and a large variety of eye protectors. Fig. 6 represents a pair of dust-proof spectacles with detachable glasses, while Fig. 7 shows a pair of leather and wire gauze

Fig. 5.

protectors for glass workers. Important novelties also are their smoke-protecting head and face masks, their heat and fireproof hand protectors (enabling workmen to hold even red-hot iron for a considerable length of time), and their belt-lifting apparatus, for lifting belts on pulleys while in motion.

Fig 6

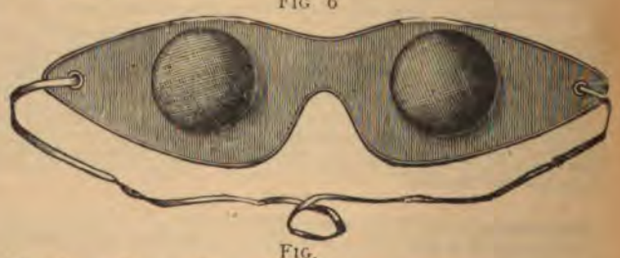

Fig.

Another safety appliance is the wire embedded toughened glass protector for protecting gauge, etc., glasses. This glass protector will stand great pressure, having been tested to pressures of 400 lbs. per square inch without giving way. Should it actually get cracked it will not fly. Two forms are shown in Figs. 8 and 9, the latter being specially designed for locomotive boilers.

Lastly, the luminous gauge glass reflectors (Fig. 10), showing exact water level both in day time and at night, will be found useful in chemical works, as they show the exact water level in the gauge glasses at all times and in all kinds of weather.

COAL PROSPECTS IN CAPE COLONY.

In our last Special Issue (p. 60), we referred to the production of coal at the Cape, and it is interesting to note that Professor Corstophine, the government geologist and Director of the geological survey of Cape Colony, has made an interesting contribution to the discussion of the recently revived suggestion that coal exists in payable quantities in the extensive district of the colony known as the Karoo. He agrees generally with Mr. E. J. Dunn, as to the identity of the zone of Dwyka conglomerate, which surrounds the Karoo on the north-west, and south, and says that although knowledge of the eastern outcrops is rather vague, it is probable that a continuous belt exists enclosing a large part of the Orange Free State and the South African Republic. He is also of opinion that the evidence is conclusive as to the glacial origin of the conglomerate, and regards as important Mr. Dunn's recent identification of the conglomerate underlying the coal measures at Vereeniging with the Dwyka formation. The relation of the conglomerate to the underlying rocks is, however, not always the same. In the south of the Karoo, the Witteberg quartzites are overlain conformably by shales, which in turn pass into the conglomerate; while in the north and in the Transvaal the conglomerate lies on the oldest rocks known in South Africa. Probably, therefore, those northern localities existed as dry

Fig. 8.

Fig. 9.

Fig. 10.

land at a time when, further south, marine or rather lacustine conditions prevailed. Mr. Dunn has long held that coal is to be found underneath the Karoo, and in 1886 recommended boring in that area in order to find it. Much money has been spent and lost in the vain search. There can be little doubt, Professor Corstophine admits, that the coal at Vereeniging lies just above the Dwyka conglomerate. Is it not then likely that coal lies at that same horizon in Cape Colony? Without the expense of boring much information may be obtained, at least on the south of the Karoo, where the beds lie on end and many miles of the junction of Ecca shales and Dwyka conglomerate are revealed. The precise geological horizon at which the Vereeniging coal occurs underground is here at the actual surface. Diligent search on the part of many interested has, however, revealed nothing but the thinnest and most irregular coaly laminæ, and it seems to Professor Corstophine vain to imagine that underneath there should be masses of coal similar to that at Vereeniging. The northern area is perhaps more hopeful; at any rate, it has been less examined, and the same amount of negative evidence has not been accumulated. Yet here much may be done by judicious prospecting before expensive deep boring is entered upon. There is an element of hope in the fact that there is in colony a geological horizon which within a few hundred miles has been proved coal-bearing. It is possible that the coal area extends southward. Yet, if so, it is unlikely that no evidence of the fact is revealed at the surface. The Dwyka conglomerate has so far not yielded any fossils, but the shales above and below it contain plant remains, stems and leaves of ferns and allied plants, which enable one to correlate the Dwyka conglomerate with rocks elsewhere, especially in India and Australia. In both of these countries a somewhat similar conglomerate occurs—in India with coal beds above it, as at Vereeniging. It will be seen that although extremely cautious in the expression of an opinion, and especially with regard to the endorsement of Mr. Dunn's proposals for boring on an extensive scale, Professor Corstophine does not regard the evidence as positively negativing the theory that the Cape Colony will be able to supply its own needs in the matter of fuel supply. In the course of the session which is just about to begin the attention of the Colonial Parliament and the Government will no doubt be called to the subject, though it is not easy to see what, under present circumstances, can be done towards a solution of the problem, important as it is, until the geologists are agreed.

MAYPOLE SOAP DEVELOPMENTS.

Bonsor and Co., Ltd, is a most interesting company, formed, according to the "private" prospectus before us, with a capital of £10,000. to sell dyes, disinfectants, soap, laundry blue, starch, vermin destroyers, candles and dog soap. The vendors, Messrs. E. E. Murray and J. A. Frolich, were the late secretary and export manager respectively of the Maypole Soap Company, Limited, with which concern they ceased to be connected a few weeks ago. Messrs. Bonsor, who are also vendors, appear to be a very philanthropic firm. They are good enough to offer to sell their business, land, and buildings for the sum of £3,000., half of which is payable in cash and the balance in fully-paid shares in the company of Bonsor & Co., Limited. In the prospectus of Bonsor & Co., Limited, is a valuation by a Mr. Gamble, who values Messrs. Bonsor's works, "comprising offices, work shed, store shed, boiler-house, chimney, and other (sic) small work rooms [the chimney must be a nasty 'work room' this weather], and large open yard with paved entrance" in New Hey-road, Bradford, close to the Wakefield main road, at £3,790. 15s, and £187. 14s. for stock-in-trade. Mr. Gamble (who figures in the prospectus as an auctioneer and in his report describes himself as an architect), after going into these minute particulars, might well have told us why Messrs. Bonsor sell property valued at nearly £4,000. for the small amount of £1,500. in cash, and, in addition, a business as stated, earning the magnificent sum of £800. per annum. It is to be noted that this promising concern acquires a soft soap. It is as well that the vendors and promotors should possess a good supply of this commodity; for the prospectus teems with promises of business to be done, and has evidently been somewhat hurriedly issued, as, in quoting an agreement between Mr. Ernest Edwin Murray of the one part and the company of the other part, the blank space left for the date has not been filled in.

Will the directors of Bonsor and Co., Limited, state the name of the gentleman who is arranging to sell the trade mark and secret processes for the zymocide disinfectant, and who has had a practical connection extending over a period of many years with the disinfectant trade"? Moreover, is it a fact that the other nameless gentleman, who is to sell the company his soft soap business, and who has, to quote the prospectus, "been engaged in an entirely different branch of commerce," has ever worked his soft soap upon a commercial basis, and, if so, at a profit or at a loss? We should be interested to know more of the third nameless gentleman, from whom the company is to acquire the process for its vermin destroyers and insect powders; and also the price Messrs. Bonsor and Co., Limited, propose paying for this conglomeration of useful articles. Where did Mr. Ernest Edwin Murray, late secretary of the Maypole Company, obtain his remarkable knowledge in the "mixing and blending of aniline dyes"? Mr. Murray's co-managing director has had a somewhat varied experience. According to the prospectus, he has been engaged in past years by Messrs. E. and H. Holdsworth and Price's Patent Candle Company. Why did Mr. Frolich cease to hold those positions? Has he ever been in the wine trade in the City? and, if so, where and when? Finally, it may seem a somewhat impertinent question, but how old is Mr. H. D. Samuels, the secretary pro tem. of Bonsor and Co., Limited?

Until these questions are answered, and satisfactorily answered, we advise investors to leave the shares of Bonsor and Co., Limited, very much alone. The remarks which apply to the company will apply equally well to the syndicate which appears to be concerned in these matters, and to which Messrs. Cutcliffe, Ley and McCulloch allude in a circular issued by them referring to a "feature" of it as "the absence of heavy payments for goodwill. If you feel inclined to invest therein," they continue, "please return application form filled up, together with cheque for 5s. per share, as early as possible." If it affords any amusement to the investor this hot weather to fill up the application forms, let him fill them up by the hundred and the thousand, with the names of his aunts and uncles, cousins, and grandmothers, step-sisters, and brtohers-in-law, as long as his memory can rake them together. But when it comes to filling up a cheque as well——.—*Financial News.*

Reports of Companies.

BROOKE, SIMPSON AND SPILLER, LTD.

The annual ordinary general meeting of the above company was held at Winchester House, Old Broad-street, E.C., last week, Lieut.-Col. Arthur Brooke, chairman of the company presiding.

The Secretary (Mr. G. T. Smith) having read the notice convening the meeting,

The Chairman said: Gentlemen, with your sanction, I will take the report as read. I regret that three of our directors are not present, Mr. Vaughan and Mr. Simpson, through illness, and Colonel Bonhote, who is with his regiment. The directors are sorry for not having been able to put the balance sheet before you sooner, but the cause was that we were lead to believe that there was a chance of our joining a combination, but unfortunately that has not been carried out. If such a combination could have been made, your directors believe it would have been the salvation of the industry, for there are not many makers and manufacturers of aniline dye in England, and such a combination, I am sure, would be for the mutual benefit of us all. Our directors are quite as much disappointed as you with the loss for the year 1898, amounting to £4,759. As regards that loss, a small portion of it was due to a fire which we had in one of our departments. That would not go into more than three figures, but every little helps. At the last meeting your directors hoped, and they had every reason to hope, that with the new plant in full work, the result would be very different this year. But results have been against us, for no sooner had we bought our raw material than there was what I may call a phenomenal fall in prices, and the manufactured article, aniline, came down, and is now at such a price as it has never been sold at before. That would have been all very well if we had been able to make a large profit on other manufactures of ours. I am glad to see so many shareholders here, as your directors want to have a free discussion as to the future of the company. They have asked for no proxies, and they wish to have the balance sheet thoroughly thrashed out. I do not think I have much more to say. I will say, that as regards buildings, we only increased to a very small extent, machinery has increased £1,250; that is really the finish of the payment for the new plant. The stock comes out practically the same. I and my colleagues will be glad to give the shareholders any information they require. I now move that the report of the directors and the accounts annexed thereto for the year ended 31st December, 1898, be received and adopted.

Mr. William Spiller seconded the motion.

Mr. J. A. Brice (a shareholder) said the business had been a most unsatisfactory one from the first year. According to auditors' certificates the profits were to amount to something like 16 per cent. on the proposed capital of the company. As a matter of fact, the full dividend on most classes of shares was not paid even in the first year, and of course in no subsequent year. All manner of things had been tried to get some return for their money, but they had never succeeded; even the printing ink effort had failed. Now he asked his fellow shareholders whether it was worth while to go on. The best thing they could do was to wind up the affair as quickly as possible, in the interests of the shareholders.

Mr. W. E. Johnson said he was on the Board to represent the shareholders; he was the largest shareholder in the company. He dissented from many of Mr. Brice's remarks. All the efforts of the directors had been negatived by the perpetually falling prices. To give an illustration, when benzole, one of their greatest raw materials, was standing at 5s. per gall. it was impossible to manufacture aniline at anything like a profit, and they therefore decided to manufacture benzole from the crude. As soon as they were in a position to do so, the price fell until it stood at 7½d, although nobody supposed it would stay at that figure. It was worse than useless to reconstruct, because their stocks would be sold to a very limited clientele, and, as the liquidator would have to sell for the best price offered, the result would be ruinous.

Mr. R. J. Friswell (a director) vigorously defended the policy of the Board, and recounted the difficulties which they had had to encounter. He strongly deprecated winding up, and urged the shareholders to continue to trust their directors. Mr. Brice's remark that the printing ink part of the business was not paying was wholly inaccurate, a large portion of their returns came from that business

After some further discussion, the motion was put and carried.

Lieut.-Colonel Arthur Brooke and Mr. H. D. Wynter were re-elected directors, and Messrs. John Litchfield and Son were re-appointed accountants and auditors.

The proceedings terminated with a vote of thanks to the chairman and directors.

GAS LIGHT, AND COKE CO, LTD.

In their report the directors state that, fortunately, the same causes which had brought about the advance in the price of coal influenced in their favour the price of coke and other residuals. They had sold their Beckton coke at an advance of 2s. 6d. on last year's prices, which was more than sufficient to pay for the increase of coal at that, the principal station of the company. Wear and tear had been especially heavy, and some companies were adopting, to a much greater extent than they were, the system of carburetted water gas, and were thereby affecting some economy on the coal account. Until the directors knew what legislation the government were going to introduce, based on the report of the committee on the subject, they thought it would be unwise to extend their water-gas plant. Moreover, the price of both Russian and American gas-oils had been raised fully 50 per cent. within the last two years.

DIVIDEND.

Sanitas Company.—The directors have declared an interim dividend at the rate of 5 per cent. per annum, payable on and after September 1 next.

NOTES ON FOREIGN TRADE.

RIO DE JANEIRO.

Manganese.—It is satisfactory to be able to record an increase in the movement of the recently-established mining industry of manganese ore, the quantity of ore exported from Rio de Janeiro having this year reached 26,000 tons, as against 15,800 tons during 1897.

In last year's report the quantity exported was, by an oversight, returned as 8,800 tons, which was the output of one only out of the two local firms engaged in this industry.

Of the ore exported in the year 1898, 15,000 tons was sent to the United States, and the greater part of the remaining 11,000 tons was consigned to England.

The degree of success already achieved in the extraction and exportation of manganese ore justifies the opinion that this might well be looked upon as one of the industries calculated to contribute to such an end. It might, therefore, be confidently expected that its development would be fostered by the fullest possible co-operation on the part of local authorities in such working details as are dependent on their control.

With considerable surprise, therefore, I learn from the owners of the mines that this is not the case, and that developments have been impeded owing to the unreasonably high rate of inland freights, insufficiency of rolling-stock provided for transport, and other difficulties which might have been easily avoided.

Fortunately, the matter is now receiving the attention of high authorities who are disposed to recognise the inexpediency of this policy, and it is therefore reasonable to expect that all difficulties will shortly be removed, and that in the near future the exports will be greatly increased.

It is worthy of notice that the mineral is now receiving attention in a fresh zone, the municipal council of Ouro Preto having recently concluded a contract for working manganese mines in that district.

Plumbago.—In answer to inquiries, instituted through the courtesy of the Director of the School of Mines at Ouro Preto, and of the editor of the *Brazilian Review*, it has been found that a bed of this mineral occurs in the neighbourhood of Miguel de Arassuahy, in the State of Minas Geraes. It is said to be of excellent quality, but so far no one has attempted to prospect it in a manner that would determine satisfactorily the real value of the deposit, which certainly appears worth attention.

Plumbagina of superior quality has also been found in a district within easy communication of the ports of Rio and Santos, and also in the State of Matto Grosso.

Cement.—Belgium is by far the largest supplier of cement, having sent during the year 86,902 casks, France holding second place with 24 845 casks, whilst Great Britain comes third with 13,264 casks, being followed by Germany with 10,210 casks. The preference is still for English brands, but that depreciation of currency has obliged importers to look out for cheaper, though inferior makes.

Of the 21,289 casks of *pitch* received, it is noticeable that only 28 casks came from Europe, the supply, with this very insignificant reservation, having been derived exclusively from the United States.

Whilst only 510 casks of *tar* were imported in 1897, the arrivals in 1898 totalled 895 casks, of which only 110 casks were received from England, the remaining 785 casks having been shipped from Hamburg.

SARDINIA.

Minerals.—The mineral production in the two provinces of the island during the campaign of 1897-98 amounted to 172,802 tons, valued at £660,540., thus surpassing that of the previous campaign by 9,622 tons.

This noticeable increase in the production of 1897-98 is mostly due to the larger output of zinc ore of 113,584 tons, representing a value of £419,253., which has taken place at the mines of Flumini Maggiori,

Iglesias, Malfidano, Cabitza, Candiazzus, Monti Aggruxiau, Monti Scorra, Rosas, Sa Duchessa, San Benedetto, Zedda is Moddizzis.

The production of lead ore was greater, especially in the mines of Guspini, Arbus, Iglesias, Domusnovas, and Flumini Maggiori, whilst that of silver ore was more considerable at the mines of San Vito.

The greater production of manganese occurred at Carloforte, in the mines of Capo Becco and Capo Rosas; that of antimony at the mines of Villasalto and Ballao; and that of lignite at the mines of Bacu Abis and Terras de Collu.

SHANGHAI.

Liquid indigo is an important export. 4,085 tons, valued at £40.610., having been shipped abroad last year.

An inquiry has been addressed to this Consulate by a firm in Calcutta as to whether it would not be possible to introduce Indian-grown indigo into the Chinese market, and asking for information as to its preparation. Of the latter I quote the following account given by Dr. Wells Williams:—"The plants, stems, leaves, and twigs are thrown into tanks, which are filled up with water; in five days partial decomposition takes place and they are all removed. About 30 catties of lime are now put into the green-coloured water and mixed by means of brooms. Four men now, with rakes, begin to beat the liquid very gently for about half-an-hour, and as it goes on the colour changes to a dingy yellow, but the froth which thickly coats the tank is bluish. A few drops of cabbage oil are poured into it and the froth disappears on stirring. After standing a few hours, about two-thirds of the liquid is drawn off as useless and the rest decanted into a smaller tank, where it settles in three or four days till the colouring matter is left at the bottom in the form of a thick paste of a beautiful blue colour."

It is sold in jars containing 90⅔ lbs. each (68 catties), and fetches from 11s. to 13s. per cwt., according to quality. It seems extremely improbable that Indian indigo can compete with it on these terms.

Indigo is extensively grown in Kwangsi province, particularly in the Po Pai district of the department of Yulin; it goes chiefly to Shanghai.

Petroleum:—The feature of the year has been the large increase in the arrivals of Sumatra oil, which found a ready sale, and which is becoming a dangerous competitor to American and Russian oil. During 1898 the deliveries were:—American oil, 35,275,000 gallons; Russian oil, 12,780,000 gallons; Sumatra oil, 13,200,000 gallons.

Sumatra oil is being sold in tins without wooden cases, the tins being filled from the tanks at Shanghai.

HANKOW.

Petroleum:—For the first time for several years the returns show a falling-off in the import of kerosene oil. The decrease in the import came to 1,019,240 gallons, and is mainly to be accounted for by the fact that there was a large stock in hand at the close of 1897. There is, however, a very large falling-off in the quantity of Russian oil imported. In 1897 the import was 8,130,000 gallons, whilst 1898 shows only 4,328,600 gallons. On the other hand, Sumatra oil has increased from 1,186,300 to 4,973,000 gallons; and the import of American has decreased to the extent of close upon 1,000,000 gallons. Sumatra oil seems to be gaining favour.

SAMSHUI.

Sumatra Petroleum would seem to be driving the American and Russian variety out of the market here. It only appeared as 2,000 gallons in 1897 whereas now the import amounts to 159,000 gallons, while American has sunk from 82,000 to 19.000 gallons, Russia showing a slight improvement. The Chinese prefer the American oil, but the Sumatran is much cheaper, and hence finds a readier sale among this frugal people. The removal of the tax on oil should give a considerable impetus to the trade.

The only item of native produce calling for remark under this head is liquid indigo (1,100,666 lbs., valued at £5,891). This is produced at various places in the Kwangsi province, the best quality coming from Pei-liu in the Ch'engchow prefecture, whence it is sent viâ Wuchow to the great dye works at Fatshan, which are said to take up over 100,000 tubs (containing 80 lbs. each) per annum. There are three grades, the first selling wholesale at ten taels (£1. 8s. 6d.) per picul (of 133⅓ lbs.), the second at 5 to 7 taels (14s. 3d. to 19s. 11d.) per picul, the third at 3 to 5 taels (8s. 6d. to 14s. 3d.) per picul.

A small quantity of foreign indigo is imported from Hong Kong, and mixed with the native dye. The Chinese say the former is brighter in colour but not so lasting as their own It is much cheaper, about one-half the price of the native article, so there should be a good demand for the better qualities. *Aniline dyes* to the value of £36 (900 lbs), and of *gypsum* nearly 70 tons, valued at £164. were imported.

CHING KIANG.

Wood-oil calls for special mention. The yearly average amounts to some 150,000 piculs, valued at £150,000 The whole of this import is required by the myriad of native boats frequenting the Yangtze and adjacent waters. Chinese junkmen use no paint in the up-keep of their vessels, only this oil, which from its properties serves admirably all the various requirements both in painting and in caulking their boats. The oil is the extract of the seed of the Aleuritis cordata, and is imported from Ch'en Chou in Hunan. Steamers take little share in the carriage of this article. The oil is inflammable and can only be carried on deck; any leakage seriouly damages other cargo with which it comes in contact, as also from the smell.

VALPARAISO.

Only a small quantity of *iodine*, a valuable by-product of the nitrate of soda industry, has been exported from Pisagua during the past year, but this is due to the fact that the shipments are regulated by a combination which exists between all the producers in order to reduce the large stocks already held in Europe.

Manganese ore is shipped at Carrizal Bajo in its natural state as it comes from the mines. It looks like dark, nearly black, stone. It has an average of 50 per cent, and is sent principally to Philadelphia, U S.A. It is used in the manufacture of steel.

The amount of manganase brought down from the mines during 1898 was 16,232 tons, a decrease of 1,057 tons as compared with the preceding year. Manganese ore does not pay export duty.

Borax.—562 tons of borax were exported from Arica, 501 tons going to Havre and 61 tons going to Liverpool.

TALTAL.

There exist immense deposits of native *sulphur* about 110 miles from this port, in the first range of the Andes These deposits are the subject of negotiations with an American syndicate, and considered a remunerative investment with a moderate amount of capital. This industry would greatly increase railway traffic and benefit trade generally in the district.

Borate of lime is also receiving the attention of capitalists, and explorations in the hitherto almost unknown fields about 75 miles in a south-easterly direction from this port are now being made which may lead to negotiations, and work being established.

There are openings here for profitable investments of capital in copper mining, by acquiring copper properties, and also in the working of the sulphur deposits on a large scale, but all these undertakings must be developed under practical and economical management.

The climate is healthy and all that can be desired. The country is sterile, and therefore all the necessaries of life have to be brought by coasting steamers from the south of Chile.

ACTION BY CHEMICAL MANUFACTURERS.

RAILWAY RATES FROM MANCHESTER.

THE adjourned hearing of this case was continued last week (*vide C.T.J.*, 637, p. 87).

Mr. Balfour Browne, in openiug his case, said there were 491 examples of overcharges given. The companies denied that they were overcharged in all instances, but admitted 251 increases, and he submitted that if the court made an order as regarded this 251 the defendants would be obliged to reduce the rates in other cases. The question at issue was an important one, for although he only represented a private company it involved a general principle, which they were anxious to enforce on all the railway companies.

Mr. Cripps, for the respondents, said that the extra charges were mainly caused by services rendered and the increased wages paid. As to the "returned empties," although not heavy, they took up a great deal of space, and having regard to the special features of this kind of traffic—the difficulties and special expenses—he submitted that the companies were perfectly justified in making these charges.

Mr. C. A. Russell followed for the Lancashire and Yorkshire Railway Company.

Mr. J. L Wilkinson, the general manager of the Great Western Railway Company, said that in 1891 and 1892 the expenses of the railway companies increased enormously owing to bigger wages and shorter hours for the employés and to the increased price of coal. In 1888 coal cost them 6s. per ton, and in 1892 12s. In was in the latter year that there was a consolidation of the different railway companies in the matter of quoting rates.

Mr. Geo. H. Turner, of the Midland Railway Company, gave similar evidence. He said the amount of increase in the expenditure from 1888 to 1892 averaged 48·70 per cent, while the increased receipts only reached 36·26 per cent.

Sir Henry Oakley, late general manager of the Great Northern Railway Company, said the increase in the working expenditure could not be attributed to any particular period. The expenses had been gradually increasing during the past ten or twelve years, but the receipts had not increased in the same proportion.

Finally an adjournment was made in order that the companies might furnish extra information as to the increased working expenditure between 1888 and 1892.

Trade Notes.

An Eight-hour Day Experiment in Russia.—The management of the Vargounine Paper Mills at Ouglitch, in the province of Jaroslav, where the employees have hitherto worked twelve hours a day, have adopted the eight-hour day system. At the same time the pay of the men has not been reduced, but they will have to work on Sundays as well as on week-days.

Admiralty Contract for Asbestos.—The Admiralty contract for asbestos goods for the ensuing twelve months has again been awarded to the United Asbestos Co., Ltd. It comprises Italian asbestos fibre, "Victor" metallic sheeting, tape, rings and joints of all kinds, "Victor" metallic packing, "Salamander" cloth packing, pure "Salamander" cloth, tape, special hard twisted yarn, and other goods. This is the fourteenth year in which the United Asbestos Co. have been awarded important contracts by the Lords of the Admiralty.

Fire at an Oil Mill.—A fire occurred on Tuesday morning at King's Lynn, resulting in the entire destruction of Messrs. Leek and Son's large oil mills, with the extensive machinery and stock. The roar of the fire was tremendous, and the oil tanks burst with loud explosions, sending tongues of flames up to an enormous height, illuminating the country for miles around. The damage is estimated at many thousands of pounds. There are several rumours as to the cause of the conflagration, but nothing definite is known.

A Linoleum Amalgamation.—Details were made public on Tuesday of a scheme for amalgamating the Kirkcaldy Linoleum Companies. The scheme also includes arrangements for obtaining control of a French linoleum company near Rouen. It is proposed that the amalgamated company should have a nominal capital of £1,000,000, divided into 35,000 preference shares of £10 each, bearing a cumulative dividend of 6 per cent., and 650,000 ordinary shares of £1 each; but it is only intended to issue £250,000 of the preference capital meantime.

Ammonium Sulphate in Scotland.—The most profitable application of artificial manures to the oat crop on 21 farms in the south-west of Scotland last season, taking the average of them all, was 88 lbs. of sulphate of ammonia, 2 cwt. of superphosphate, and 2 cwt. of kanit per acre. According to a report issued by Professor Wright, of the Glasgow Technical College, the average produce was 2,562 lbs. of dressed oats, valued at 5s. 7½d. per 100 lbs.; 259 lbs. of light grain, at 1s. 6d. per 100 lbs.; and 36 cwt. 0 qr. 18 lbs of straw and chaff, valued at 33s 7d. per ton. In a trial of basic slag against superphosphate, other manures being identical, the latter gave much the best average results on the 21 farms.

An Acetylene Generator.—A new form of generator, known as Husson's Patented System, was inspected in London last week. The apparatus, which is very simple, consists of a gas-generating vessel, a purifier, and a gas-holder, and the whole of these can readily be accommodated in a very limited space. The carbide of calcium is simply dropped into the generator as required through an opening in the top, and there seems no chance of the gas generated by the action of the contained water on the carbide escaping into the atmosphere. A cone-shaped bottom to the generator shoots the carbide close to the side of the vessel and the gas rises in an annular space to a pipe by which it is led to the purifier, and thence to the gas-holder. The latter works up and down in guides in the same way as the familiar gasometer, and a water seal is also used. An automatic arrangement is provided for feeding carbide into the generator as required. There seems to be little chance of anything going wrong even in the most unskilled hands, and absolute safety is claimed by the patentee. A brilliant and steady light is produced.

A New Flux Composition.—Some experiments with a view of strengthening and refining cast iron and steel by a flux composition called "Ferfluor" have been made on the west coast during the last few months. The "Ferfluor" is understood to be used as a lining at the bottom of the casting ladle. Upon the charge being run into the ladle from the cupola, the ladle being filled, a gentle ebullition is noticed, and a scum of skin makes its appearance upon the surface of the iron. A puddling pole is then used to stir the iron, and a further supply of the fluxing and the refining mixture is added according to the quality of the pig. The effect of the mixture is again apparent, the ladle of iron changes its colour, and the scum taken off with a skimmer. Comparing the difference between a ladle of iron of low-grade lined and having an added mixture with an unlined and no mixture added, there is a material alteration, an extra fluidity obtained in the first-named case, and upon cooling either in the case of light or heavy castings there is an absence from blowholes and a greatly increased strength. The experiments are, however, only in their early stage, and full particulars are not made public. There is, however, no doubt that extra fluidity, greatly increased strength, and a purified casting are obtained. Cast steel is stated to be increased 20 per cent. in strength.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Tar products, particularly of the heavy grades, are firmer generally. Benzols are still quoted 8½ to 9d. for 90's, and 10d. for 50/90's, but these values are mostly nominal. Carbolic acids are steady without change in prices. Solvent naphtha is dearer and scarce at 1/2½d. Pitch is very firm at 34s. 6d. f.o.b. East Coast. Naphthalene and heavy oils are both active and increasing in price.

Sulphate of Ammonia is strong both in position and prices. For next month Beckton price is £12. 10s. and £12. Oct./Mar. Prompt values are: London outside makes £12. 6s. 3d. Hull, £12. 3s. 9d. to £12. 5s.; Leith, £12. 5s. to £12. 7s. 6d. Nitrate of Soda, 7/9 per cwt.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade there is a brisk demand for all the products, and the higher tendency in prices continues to develop. A further advance of 10s. per ton has been made in caustic soda for home trade, which makes the current quotations f.o.b. Liverpool as follows: 77%, £8. 10s.; 74%, £8. 5s.; 70%, £7. 17s. 6d.; 60%, £6. 17s. 6d. per ton; free on rails, makers' works, 2s. 6d. per ton less. Some exceptions from these prices are made for certain European markets. Bleaching powder continues firm at £4. 15s softwoods, f.o.r., and £5. 5s. per ton hardwoods, f.o.b. Chlorates are unchanged in position or value. Alkali 58°/₀ is firmer; makers' stocks have been considerably reduced, and higher price is spoken of as probable; the quotation for contracts, however, still remains at £3 17s. 6d. bags, f.o.r., and for spot £4 2. 6d. per ton. Soda crystals rather dearer at £2. 12s. 6d. bags, f.o.r. Bicarbonate unaltered. Sulphur firm at £4. 12. 6d. per ton. Sulphate of copper rather lower at £24 for prompt delivery. Brown acetate of lime steady at £4. 17s 6d. ex ship; grey, £7. 15s. per ton. Acetate of soda firm at £13. c.i.f. Yellow prussiate of potash, 7⅞d. per lb. Soda, 6d. per lb. Sulphoeyanides are quiet and values unchanged. Potash, caustic and carbonate, are scarce and dearer. Carbolic acids firm. White powdered arsenic steady at £18. 15s. per ton, f.o.r. Garston. Nitrate of soda, 7s. 7½d. per cwt. Tin crystals advanced to 10½d. per lb. Zinc salts have also a firmer tendency. For lead salts there is only a small demand. For chemicals in the textile trades there is only a moderate amount of business doing.

REPORT ON MANURE MATERIAL.

Owing to holidays intervening, the market has been rather quiet, but prices remain very firm, and the tendency is in an upward direction.

High-grade phosphate is still enquired for, but no further important business is reported. Quotations are about 8½d. per unit, c.i.f., good U.K. port, in cargoes, for 77/80% Florida phosphate rock, 1900 shipment; 7d. to 7½d. per unit for 78/80% Tennessee rock; 6½d. to 6¾d per unit for South Carolina; and 6¼d. per unit for 58/63% Algerian rock.

Sellers of fine East Indian bone meal are still very firm, and so far no business is reported done in this description, price indicated by shippers being altogether above buyers' ideas. Spot quotations remain £5. 5s. to £5. 10s. per ton, ex store, according to quality.

Nitrate of soda is firm on spot at 7s. 7½d. per cwt. for ordinary, and 8s. per cwt. for fine quality.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron, easier: Scotch Warrants closed at 67s. 9d., Middlesbrough, 64s. 8½d., cash, and hematite, 71s. 5½d. Copper steady: Chili bars, G.O.B.'s and G.M.B. s, closed at £76. 10s. to £76. 15s., cash; and £77. 0s. to £77. 5s. three months. Tin, irregular: Straits closed at £145. 16s 3d. to £146 6s. 3d. cash, and £147. 0s. 0d. to £147. 10s. 0d. three months; Australian, £146. 10s.; English ingots, £149. 10s. to £150. Lead, strong: Spanish, £14. 12s. 6d.; English, £14. 15s. Silesian spelter, ordinary, £24. 5s. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 7s. *Copper Shares* firm: Cape, 4⅜ to 4¼; Copiapo, 3⅝ to 3¾; Libiola, 1¾ to 2; Mason & Barry, 3⅝ to 3⅞; Rio Tinto, 45⅜ to 45½; Tharsis, 8 to 8¼.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is firm, and in fairly good demand. Business has been done at full rates, but prices are not reported. Olive is scarce, and prices generally are higher. Linseed is firm at 21s. 6d. to 22s. per

cwt for Liverpool makes in export casks. Cottonseed steady at 18s. to 18s 6d. per cwt. for Liverpool refined. Castor oil is in fair request, with good seconds Calcutta at 2⅞d.; first pressure French and Madras 2⅞d. per lb. Tallow is firm, and 27s. 6d. to 28s. has been paid for South American. Resin keeps steady, with a satisfactory demand for all grades. Spirits of turpentine continue to advance, and 37s. per cwt. is now asked, with a moderate demand at that. Petroleum dull: American 6⅛d. to 6⅞d. and Russian refined 5⅞d. to 6¼d. per gallon.

CAKES—Owing to the holidays business in all departments has been on a moderate scale, but prices generally are steadily maintained. In American Western linseed on the spot transactions were on a small scale at £6. 8s. 9d. to £6. 12s. 6d., with only a quiet trade doing in Bombay at £6. 17s. 6d. to £7., but River Plate were exceptionally held for 2s. 6d more money owing to the small supplies available here, sellers now quoting £6. 15s to £6. 17s. 6d. per ton, whilst the value of Russian remains quite nominal for want of stock. Liverpool makes continue to meet a moderate inquiry from consumers, and the quotation is still given at £7. 2s. 6d. to £8. per ton, according to brand, with a firm tone ruling thereat. Buyers showed little disposition for business in good to choice brands of American decorticated cottonseed, but the market rules steady, and £5. 10s. to £6. is still quoted, according to quality, with a fair inquiry experienced for Liverpool makes at £6. 2s. 6d. to £6. 17s. 6d. per ton, according to brand. Liverpool undecorticated makes were not in brisk request, but the tone being very steady the quotation is repeated as in our last at £4. 17s. 6d. to £5. 7s. 6d. per ton, according to brand. There is rather a firmer tone ruling in the spot market for Egyptian, and with a fair inquiry going on the quotation is the turn in sellers' favour at £4. 10s. to £4. 12s. 6d. per ton for store parcels.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Business here after yesterday's holiday is of a very lackadaisical character, yet, upon the whole, the business throughout the city is considered good. Prices of oil remain firm and rather better than worse. The stocks of seed in Hull month ending July, as against end of June, were—Linseed 8,620 qrs against 19,834 qrs.; rapeseed, 4,007 qrs. against 5,505 qrs.; cottonseed, 5,186 tons against 4,302 tons; whilst the imports have been—linseed 48,746 qrs. against 24,162 qrs during June; rapeseed, 3,857 qrs. against 1,677 qrs.; cottonseed, 5,607 tons against 5,064 tons. One of the most disappointing features in respect to the imports is the continued increase of oilcake manufactured abroad, whilst the mills here are only partially employed. The imports to date for the year have been 12,372 tons against a year ago 8,570 tons. The exports of oil for the week have been—linseed 37 tons and cottonseed 96 tons. Linseed oil is steady, and quoted 20s. spot, naked; 19s. 9d. month; 18s. 4½d. last four months. Boiled and refined £1. to £1. 10s. per ton extra. Refined cotton oil is scarce, being quoted 16s. 4½d. spot, naked; 14s. 4½d Nov /April; casks £1. and ordinary barrels £1. 10s. per ton extra. Cod oil £17. to £19. per ton in barrels. Olive oil small stocks, values unchanged. Turpentine very firm, £37. per ton. Olive oil soap £16. to £18. per ton. Castor oil a trifle easier, but quotations practically unchanged. Resins unchanged.

CAKES.—Linseed cakes continue a very firm market, but cotton cakes are weak and in poor demand. Linseed cakes 95% pure, £7 5s to £7. 7s. 6d. per ton; oilcakes (linseed), £6. 5s. to £6. 7s. 6d. Russians, £7. to £7. 5s. Americans, none. Cotton cakes, best makes, £5. 5s. to £5. 7s. 6d. asked; seconds £4. 17s. 6d. to £5. 2s. 6d. Decorticated, none. Rape cakes, Black Sea, £4. 7s 6d. to £4 12s 6d. per ton.

PAINTS.—White and red leads are very scarce on the spot. Paints and varnishes unchanged. Disinfectants in good demand. 25% carbolic powder £4. 12s. 6d. per ton. Disinfecting fluid from 10d. per gallon.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

There have been fewer fluctuations, than is usually the case, going on in sulphate of ammonia, so far as the northern market is concerned. Over the past fortnight there has been hardly any veering from about £12. 2s. 6d. prompt, f.o.b. Leith, though the feeling is really not so strong as the makers could desire. There is nothing of the least consequence mooted with regard to forward dealing. This week the heads of the mineral oil industry will meet in Glasgow to settle the standing of burning oil on the market over the coming new period of consumption. An increase on last season's figures is certain, and the article is in a sounder condition than it usually is. Lubricating oils are not made the subject of any forecasted agreement; but they are well priced and in good enquiry. Solid paraffins are fractionally higher, and paraffin spirit (naphtha) maintains late good position. Sulphate of copper has made a further loss, and saltcake is easier; but the rest of the common chemicals are healthy, and bleaching powder is again in rather firmer quotation.

Chief prices current are:—Soda crystals, £2. 5s. to £2. 7s. 6d. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £7. 15s od., 70/72° £7. 7s. 6d., 60/62° £6. 7s. 6d., and cream 60/62° £6., all nett, Liverpool; bleaching powder, 35/37°, £5. 12s. 6d. to £5. 15s od. nett, Tyne; saltcake, 23s. to 24s; borax, English refined, £16., and boracic acid, £25 nett, Glasgow; bicarbonate of soda, 5-cwt casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¾d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3½d., less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 1s. 3d. to £12. 2s. 6d. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £24. 10s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb; paraffin spirit (naphtha), 9½d. to 10d. per gal.; paraffin oil (burning), No. 1, 6½d.; and crystal, 7d., at Glasgow and other big centres, for Scotch buyers, (English sales a shade lower); ditto (lubricating) 865° £5. to £5 5s., 885° £5. 10s. to £6., and 890/895° £6 5s. to £6. 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

Market here is fairly steady, the chief feature being a further advance of 10/- per ton in the price of caustic soda, this article being now quoted on a basis of £8. for 70%, and £8. 15s. for 76/77% Bleach is also steady at £5. 10s. to £5 15s. per ton. Sulphur firm at £4. 15s. per ton, f.o.b.

Bleaching powder, softs, £5. 10s. per ton, nett; do., hards, £5. 15s. per ton, nett; caustic soda: 76/77% £8. 15s., and 70% £8. per ton, nett; recovered sulphur, 2 cwt. bags, £4 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. od. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. od. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt unaltered at 9s. 6d. per ton, f.o.b. Tees

COALS.—Market continues active and there is a good demand for nearly all qualities of coals. Coke is scarce and strong at 25s. and 26s. per ton. To-days quotations are: best Northumbrian steam, 12s. 6d. and 13s. per ton; second qualities, 11s. 6d. and 12s. per ton; small steam, 6s. and 6s. 3d. per ton; gas coals, 10s. and 11s. per ton; household coals, 10s. and 11s. per ton; coke, 25s. and 26s per ton.

New Companies.

Messrs. Wallace & McIntyre, Ltd.—CAPITAL £2,000. in £1. shares. This company has been formed to carry on the business of wholesale, retail and manufacturing chemists and drysalters. Registered without articles of association by James Hampton, 5, St. Andrew Square, Edinburgh.

Acetylene Supply Co., Ltd.—CAPITAL £1,000. in £1. shares. This company has been formed to acquire the business of acetylene gas manufacturers, of gas generators, and apparatus, lamp, bracket, globe and burner manufacturers, electrical and mechanical engineers, etc. Registered office, 22, Huntriss Row, Scarborough, Yorks.

Heaton Squire & Francis, Ltd.—CAPITAL £70,000. in £1. shares (35,000 pref). This company has been formed to adopt an agreement with G. B. Francis and W. H. Francis, and to carry on the business of manufacturing chemists, wholesale druggists, soap and cosmetic manufacturers, spice merchants, brewers, chemist and general store keepers, etc. The subscribers to the memorandum of association are:—G. B. Francis, 38, Southwark-street, S.E., wholesale druggist; W. H. Francis, 38, Southwark-street, S.E., wholesale druggist; W. A. Naylor, 38, Southwark-street, S.E., wholesale chemist; R. J. Reynolds, 38, Southwark-street, S.E., wholesale druggist; J. B. Ridgwell, 38, Southwark-street, S.E., wholesale druggist; W. J. Rogerson, 38, Southwark-street, S.E., wholesale druggist; R. Sharrah, 38, Southwark-street, S.E., traveller.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending July 29th.

Acetate—
Germany, 1 cs. Butler's Wf., Ld.

Acetate of Lime—
U. States, 402 pks. Gillespie Brs. & Co.
,, 809 bgs. H. Wallace & Co.

Acetic Acid—
Holland, 10 pks. H. Wallace & Co.
,, 66 A. & M. Zimmermann

Acetone—
Germany, 11 dms. J. Norrenberg & Co.
,, 3 pks. R. W. Greeff & Co.
Holland, 2 Hernu, Peron, & Co.
,, 2 dms. T. H Lee
Austria, 21 D. T. Domeier & Co.

Alkali—
Holland, 16 c. J. Barber & Co.
France, 2 t. ,,

Alum—
Holland, 478 pks. J. White

Ammonia—
Holland, £90 H. Lorenz

Antimony Ore—
France, 29 t G. Smith & Son
,, 5 J. Walter & Co.
Japan, 36 City Coml. Wf., Ld.

Arsenic—
Portugal, 144 pks. Coverley & Westray

Barium Nitrate—
Holland, £80 R. W. Greeff & Co.

Barytes—
Belgium, 192 pks. J. L. Lyon & Co.
,, 124 W. Balchin, Ld.
,, 68 W. Harrison & Co.
Holland, 86 ,,
,, 31 J. Owen
Germany, 56 W. Harrison & Co.
,, 15 H. Lambert

Bleaching Powder—
Holland, 100 pks. J. M. Steel & Co.

Bones—
Sydney, 7 t. C. A. & H. Nichols

Bromine—
Germany, 45 cs. A. & M. Zimmermann

Caoutchouc—

France,	2 t.	10 c.	W. Balchin, Ld
,,		16	E. Flageollet, Parent, & Co.
,,	3	3	Van Oppen & Co.
Zanzibar,	3	6	L. & I. D. Jt. Co.
Straits,	24	15	,,
,,	9	8	E. Boustead & Co.
,,	16	2	Gilman Brs. & Co.
,,	11	15	W. Pope & Co.
E. Indies,		1	Prop. Bull Wf.
Madagascar,		10	Wainwright Brs. & Co.
Holland,	13	9	A. C. Lloyd
Japan,	2		G. S. N. Co.
Rangoon,	1	6	A. Runge & Co.

Carbon—
Holland, £160 Phillips & Graves

Carbonic Acid Gas—
Holland, 25 pks. Netherlands S. B. Co.

Castor Oil—
Italy, 10 cs. H Johnson & Sons

Caustic Potash—
Germany, 40 pks. J. M. Steel & Co.

Caustic Soda—
France, 5 t. W. H. Carey & Sons

Chemicals *(otherwise undescribed)*
Holland, £60 Chemical Works
,, 10 J. Barber & Co.
,, 48 Netherlands S. B. Co.
Sweden, 10 M. D. Co.
Germany, 15 L. & I. D. Jt. Co.
,, 11 Butler's Wf., Ld.
,, 40 Craven & Co.
,, 20 T. Palmer
Norway, 150 A. Hughes
Belgium, 39 John Cockerill Line

Citrate of Lime—
Italy, 19 pks. B. Jacob & Sons
,, 22 W. C. Bacon & Co.

Coal Products—
Carbolic Acid
Germany, 75 pks. J. Owen
Pitch
N. Russia, 510 brls. J. Batson & Co.
Germany, 50 H. Hunt
W. Indies, 50 Gillespie Brs. & Co
,, 60 Abey, Abbey, & Co
,, 127 98 pks. L. & I. D. Jt. Co.
U. States, 34 cks. F. Gardner
—— 60 H. Hill & Sons

Tar
N. Russia, 59 brls. W. Beard & Son

Colours—
Holland, 6 cks. Hernu, Peron, & Co
Germany, 3 O'Hara & Hoar
Italy, 7 brls. ,,

Cream of Tartar—
Holland, 20 pks Kirkpatrick, Barr, & Co.
,, 20 Beresford & Co.
Spain, 13 B. & F. Wf. Co., Ld.
France, 20 F C. Devon & Co.

Dyestuffs—
Alizarine
Holland, 11 pks. G. S. N. Co.
Argols
Italy, 502 pks. B. Jacob & Sons
,, 145 Thames S T. & L. Co., Ld.
Cape, 25 Hammond & Co.
Cochineal
Canaries, 10 pks. Swanston & Co.
Cutch
Rangoon, 250 pks. Leach & Co.
Extracts
France, 5 pks. B. & F. Wf. Co., Ld.
,, 650 Boutcher, Mortimore & Co.
Canada, 165 ,,
Gambier
Straits, 2,664 pks. Prop. Hay's Wf.
,, 453 Brinkmann & Co.
,, 3 133 E. Boustead & Co
,, 3,005 Adamson, Gilfillan, & Co.
,, 152 Brown & Elmslie
,, 241 P. & O. Co
,, 1,776 J. Swire & Sons
,, 1,653 Union L. Co., Ld.
Japan, 1,653 G. S. N. Co.
Indigo
E. Indies, 15 chts. H. J. Perlbach & Co.
,, 7 R. Von Glehn & Sons
Myrabolams
E. Indies, 1,005 bgs. Hoare, Wilson & Co.
,, 335 pks. E. J. Winser & Co.
,, 1,573 H. J. Perlbach & Co.
,, 200 Baxter & Hoare
,, 1,159 F. Claydon & Co.
Naphthaline
Belgium, 80 cks. Fuerst Brs.
Saffron
Spain, 1 pk. Richardson, Spence, & Co.
Shumac
Italy, 1,749 bgs. J. Kitchen, Ld.
,, 1,000 Bevington & Sons
,, 150 pks. J. E. Scott
,, 300 W. Shelcott & Sons
,, 50 W. W. Ware & Co.
,, 500 E. Lloyd & Co.
,, 700 A. Slator & Co.
Tanners' Bark
Natal, 69 t. Bullard, King & Co.
,, 39 Boutcher, Mortimore
Adelaide, 33 H. Devitt & Co.
,, 55 Leach & Co.
N. Zealand, 23 L. & I. D. Jt. Co.
Turmeric
E. Indies, 9 pks. Baxter & Hoare
China, 25 R. Warner & Co.
Valonia
A. Turkey, 100 t. Hicks, Nash & Co.
,, 82 Anning & Cobb
,, 24 Adam Brs.
,, 50 Boutcher, Mortimore & Co.

Dyestuffs *(otherwise undescribed)*
Ceylon, 1 pk. R. G. Hall & Co.

Farina—
U. States, 20 pks. L. & I. D. Jt. Co.
Germany, 100 J. Barber & Co.
,, 100 J. Knill & Co.

Gamboge—
Straits, 13 pks. Clarke & Smith

Glucose—

U. States,	1,312 pks.	7,275 c.	R G. Hall & Co.
,,	500	500	L. & I. D. Jt. Co.
,,	114	114	Trier, Meyer & Co.
,,	150	925	L. & Til. L. C. & D Co.
,,	50	289	J. Keiller & Sons
,,	50	1,791	Union L. Co., Ld.
France,	400	402	L. Norman & Co., Ld.
,,	140	140	Trier, Meyer & Co.
Germany,	25	203	Beresford & Co.
,,	74	115	J. Knill & Co.
,,	9	74	M. D. Co

Glue—

France,	£14	Bennett S. S. Co.
,,	118	J. Harrison
,,	82	Burnett Brs. & Sons
,,	805	T. M. Duche & Sons
,,	24	Prop. Hay's Wf.
Germany,	140	J. Greig
,,	125	Steinhoff, Sons & Co.
,,	98	J. Barber & Co.
,,	600	Deering & Robottom
,,	250	H. Lambert
,,	175	Jones & Co.
,,	140	W. J. Davies & Sons
Belgium,	390	G. E. Banes
,,	805	T. M Duche & Sons
,,	44	Leach & Co.
U. States,	90	Parsons, Fletcher, & Co.

Glue Stock—
N. S. W. 75 bls. C. A. & H. Nichols

Glycerine—

Germany,	£25	L. & I. D. Jt. Co.
France,	151	Soundy & Sons
N. Zealand,	30	H. Hill & Sons

Guano—
Spain, 6 t. S. Pitt & Co.

Gutta Percha—

Straits,	4 t.	4 c.	L. & I. D. Jt. Co.
,,	7	3	Huttenbach & Co.
,,	10	9	W. Pope & Co.
,,	601		H. W. Jewsbury & Co.
,,	16	1	Gilman Brs. & Co.
,,		2	J. Swire
,,	22	14	Kleinworth, Sons & Co

Gypsum—
France, 102 t. Lawes Chemical Manure Co.

Iron Oxide—
Germany, 6 pks. H. Lambert

Litharge—
Holland, 8 pks. J. Owen
Germany, 3 Butler's Wf., Ld.

Magnesium Carbonate—
U. States, £25 S. Lambert & Co.

Manganese Ore—
Germany, 2 t. G. Boor & Co.

Manure—

E. Indies,	100 t.	T. T. Creed
,,	408	A. Hunter & Co.
,,	200	Hollingburst & Co.
France,	28 brls.	J. Greig

Methyl Alcohol—
France, 4 dms. Lister & Biggs

Molasses—

B.W.I.,	175 cks.	1,750 c.	Wilkinson & Gaviller
,,	175	1,750	Perkins & Homer

Ochre—

France,	20 pks.	W. Harrison & Co.
,,	89	J. L. Lyon & Co.
Holland,	7	Phillipps & Graves
Japan,	55	G. S. N. Co.
U. States,	628	Binney & Smith

Oxalic Acid—
Norway, 20 pks. S. C. Dk. Co.

Potassium Bicarbonate—
Holland, 10 pks A. & M. Zimmermann

Potassium Carbonate—

Germany,	2 cks.	Butler's Wf., Ld.
,,	1 t. 6 c.	H. Lambert
,,	10 8	Blagden, Waugh, & Co.
,,	10	Petri Brs.
,,	33 10	J. M. Steel & Co.
Canada,	3 2	M. Dk. Co.
France.	5	G. Burroughs

Potassium Chlorate—

France,	110 pks.	Taylor Brs.
Sweden,	20	G. Boor & Co.

Potassium Muriate—
Germany, 500 pks. Beckler, Waechter, & Co.

Potassium Permanganate—
Germany, 20 pks. Butler's Wf., Ld.

Potassium Sulphate—
Belgium, 50 bgs. Charles & Fox

Pyrites—

Spain,	1,999 t.	C. Tennant, Sons, & Co.

Red Lead—

Holland,	33 pks.	Burrell & Co.
,,	4	J. Owen
Germany,	44	Randall Brs.
,,	18	H. Lambert

Rosin—

U. States,	500 brls.	H. Hill & Sons
,,	1,000	F. & S. Chiesman & Co.
France,	26	B. & F. Wf. Co., Ld.

Salicylic Acid—

Belgium,	17 pks.	John Cockerill Line
France,	6	Mory & Co.
Germany,	26	Butler's Wf., Ld.

Saltpetre—

Germany,	16 cks.	L. & I. D. Jt. Co.
,,	76	P. Hecker & Co.
E. Indies,	302 bgs	Lucas & Spencer's Wf.

Silver Nitrate—
Germany, 3 cs. R. W. Greeff & Co.

Soda Crystals—
Belgium, 6 t. Leach & Co

Sodium Bichromate—
Germany, 44 pks. C. Tennant, Sons, & Co.

Starch—

Holland,	60 pks	G. S. N. Co.
,,	282	T. H. Lee
,,	2,282	Little & Johnston
,,	40	Pearce, Duff, & Co.
,,	60	Hernu, Peron, & Co
Belgium,	850	E. & T. Pink
,,	320	Becker & Wagner
,,	70	Taylor Brs.
,,	975	T. H. Lee
,,	85	Leach & Co.
,,	40	J. Harrison
Germany,	400	Horne & Co.
,,	40	Argo S. S. Co.
,,	6	Butler's Wf., Ld.
U. States,	100	W. G. Taylor & Co., Ld.
,,	800	Ohlenschlager Brs.
,,	575	R. G. Hall & Co.
,,	100	C. Tennant, Sons & Co.
,,	1,250	Union Ltge. Co., Ld.
,,	100	E. & T. Pink
France,	500	,,
,,	500	W. E. Cole
,,	27	L. Mendelsohn
Austria,	50	M. Dk. Co.

Stearine—

Holland,	31 bls.	J. Owen
,,	489 bgs.	H. Hill & Sons
Belgium,	9 cks.	,,
,,	126 bgs.	,,
,,	96	J. W. Baker
France,	60	Burnett Brs. & Sons

Sulphur—

Italy,	200 t.	A. F. White & Co.
France,	2	J. Forsey

Sulphurous Acid—

Germany,	50 pks.	Spencer, Chapman & Co,
Holland,	10	Perkins & Homer

Tallow—
France, 131 bgs. H. Hill & Sons
N. Zealand, 36 cks.
" 5 L. & I. D. Jt. Co.
U. States, 149 Cuthbert & Hall
" 93 L. Thompson & Co
" 10 Lunham & Wood
" 154 Mordaunt Brs.
Holland, 10 Phillipps & Graves
N.S.W., 64 Aust. Meat Co.
" 319 Kleinworth, Sons & Co.
" 184 Goad, Rigg. & Co.
" 50 C. A. & H. Nichols
Channel Is., 7 Cheeswright & Co.
Stanley, 48 Deering & Robottom
Belgium, 2 8 tcr. J. Harrison

Tartar—
Italy, 15 pks. Thames S. T. & L. Co., Ld.
" 43 cks. B. Jacob & Sons

Tartaric Acid—
Belgium, 4 pks. F. C. Devon & Co.
Germany, 20 D. T. Domeier & Co.
Holland, 14 Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 5 pks. J. Barber & Co.
" 6 Phillipps & Graves
" 3 G S N. Co.
" 20 Wilkinson, Heywood, & Co.

Yarnish—
U. States, 21 pks. Atlantic Transport Co.
" 75 J. R. Francis & Co.
" 33 Lunham & Moore
Holland, 5 Phillipps & Graves
Belgium, 6 T. H. Lee

Waste Salt—
Germany, 32 t. F. W. Berk & Co., Ld.

White Lead—
Holland, 74 pks. A. & M. Zimmermann
" 28 Burrell & Co.
" 22 Perkins & Homer
" 32 Taylor Brs.
" 40 Randall Brs.
" 4 J. Owen
" 20 Netherlands S. B. Co.
Belgium, 59 T. & W. Farmiloe, Ld.
" 23 J. L. Lyon & Co.

Wood Pulp—
Sweden, 80 pks. W. G. Taylor & Co.
" 500 Tough & Henderson
" 240 Alsing & Co., Ld.
Norway, 1,600 C. Christophersen & Co.
" 2,000 J. Sharp
Portugal, 200 W. G. Taylor & Co.
U. States, 2,710 Henderson, Craig, & Co.
" 292 A. E. Reed & Co.
" 300 W. Balchin, Ld.
Holland, 106 Thames S. T. & L. Co., Ld.

Zinc Oxide—
Germany, 10 pks R. W. Greeff & Co.
U. States, 300 M. Ashby, Ld.

Zinc White—
Holland, 20 pks. J. Owen
" 81 Spies Brs. & Co.

LIVERPOOL.

Week ending July 27th.

Aluminium—
New York, 306 bxs. 19 cs. T. Ashbury

Antimony—
Antofagasta, 132 sks. A. Gibbs & Sons

Barytes—
Antwerp, 52 cks., 100 bgs.
Hamburg, 100
Rotterdam, 20

Bone Ash—
Campana, 731 bgs.
Valparaiso, 10 sks J. Caro & Co.

Bones—
Salonica, 178 bgs. J. R. Francis & Co.
Valparaiso, 49 sks. J. Caro & Co.

Borate of Lime—
Iquique, 1,029 bgs.
Mollendo, 3,398 sks.

Borax—
Bathurst, 5 pks. Cie Francaise
Conakry, 1 Radcliffe, Son, & Durant

Caoutchouc—
Hamburg, 50 bgs.

Caustic Potash—
Antwerp, 20 dms.

China Clay—
Boston, 6 cks

Citric Acid—
Messina, 4 cks.

Colours—
Antwerp, 1 cs, 4 cks.
Hamburg, 2 cs.
Rotterdam, 2 cks.

Cottonseed Oil—
Newport News, 100 brls.

Cream of Tartar—
Barcelona, 5 cks.
Bordeaux, 54
Oporto, 5 Sachse & Klemm
Tarragona, 10

Dyestuffs—
Cochineal
Gd. Canary, 25 bgs. Kennedy, Moore, & Co.
" 4 bgs. Canary Is. Co.
W. C. Africa, 42 Kennedy, Moore, & Co.
Cutch
Rangoon, 700 bxs.
Extract
Bordeaux, 425 sks. J. R Francis & Co.
Fiume, 90 brls. Oak Extract Co., Ld.
Myrabolams
Bombay, 2,185 bgs. E. D. Sassoon
" 3,052
Saffron
Valencia, 1 cs.
Shumac
Barcelona, 100 bgs.
Palermo, 1,350, 70 bls.
Turmeric
Bombay, 134 bgs.

Dyestuffs *(otherwise undes.)*—
Boston, 201 cs. Fassett & Johnson

Dyewood Extract—
New York, 220 brls. McArthur & Co.

Farina—
Fiume, 250 bgs.

Glucose—
Baltimore, 100 brls.

Glue—
Hamburg, 3 cks.
Naples, 20 bgs.
Rotterdam, 2 bls.

Glue Stock—
Hamburg, 4 bls.

Gutta Percha—
Forcados, 156 bgs. Royal Niger Co.

Litharge—
Hamburg, 3 cks.

Magnesite—
Kymassie, 300 t. Tennant

Manganese Ore—
Salonica, 980 t. J. R. Francis & Co.

Paraffin Wax—
Baltimore, 100 brls.

Phosphates—
Bona, 800 t.
Fernandino, 2,950

Pyrites—
Huelva, 2,474 t. Matheson & Co.

Red Lead—
Rotterdam, 18 crts.

Rosin—
Baltimore, 200 brls.
Boston, 1,500

Saltpetre—
Calcutta, 264 bgs. Ralli Brs

Soap—
Naples, 234 cs.
New York, 200 bxs. B. T. Rabbitt

Sodium Bichromate—
Hamburg, 8 cks.

Starch—
Antwerp, 340 cs.
Boston, 125 brls., 180 sks.
Rotterdam, 80 cs.

Talc—
Genoa, 1,000 bgs. Anglo-Italian Talc Co.

Tallow—
Boston, 601 tcs., 406 brls.
B. Ayres, 223 cks.
Montreal, 41 brls.
Newport News, 395 tcs.
New York, 150 Colby & Co.
" 50 pps.

Tartaric Acid—
Hamburg, 19 cks.

Ultramarine—
Rotterdam, 16 cks

Yarnish—
Alexandria, 3 brls.

Waste Salt—
Hamburg, 3,129 bgs. 91 t.

White Lead—
Rotterdam, 10 crts.

Wood Pulp—
Boston, 236 crts. Lever Brs., Ld.
Hamburg, 200 bls.
Miramichi, N.B. 754
Oporto, 100
Quebec, 1,600 A. Wortheim & Co.

Zinc Chloride—
Boston, 17 brls.

Zinc Oxide—
Antwerp, 100 brls.

Zinc White—
Antwerp, 20 brls.
Rotterdam, 14 cks.

MANCHESTER.

Week ending July 29th.

Ammonia—
Rotterdam, 50 cldrs

Antimony Salt—
Rotterdam, 25 cks.

Asbestos—
Rotterdam, 7 crts.

Barytes—
Antwerp, 280 bgs.
Rotterdam, 200

Castor Oil—
Antwerp, 36 brls.

Caustic Potash—
Treport, 38 dms.

Coal Products—
Aniline
Rotterdam, 15 cks.

Cobalt—
Rouen, —

Colours—
Antwerp, 2 brls.
Rotterdam, 123 cks. 43 cs., 28 brls., 8 bxs.

Dyestuffs—
Extract
Ghent, 25 cks.
New York, 20 bxs.
Rotterdam, 1 ck.
Rouen, 1

Gelatine—
Antwerp, 21 c.

Glucose—
New York, 50 brls.

Glue—
Antwerp, 11 cks.
Rotterdam, 1, 20 bgs.
Rouen, 80
Treport, 70 cks. 80 bls., 14

Lead Acetate—
Antwerp, 14 cks.
Rotterdam, 37

Ochre—
Treport, 18 cks.

Oxalic Acid—
Rotterdam, 25 cks.

Paraffin Wax—
New York, 472 brls.

Potassium Carbonate—
Hamburg, 20 cks.
Treport, 4

Potassium Muriate—
Hamburg, 44 cks.

Potassium Prussiate—
Hamburg, 4 cks.
Rouen, 2

Red Lead—
Rotterdam, 16 cks.

Soap—
Rotterdam, 3 cs.

Starch—
Antwerp, 470 cs.
Hamburg, 50 brls., 316 cs.
New York, 3,425 bgs.
Rotterdam, 20 120 cs.

Stearine—
Antwerp, 63 bgs.

Tartaric Acid—
Rotterdam, 20 kgs., 10 cks.

Ultramarine—
Hamburg, 2 cks.
Rotterdam, 10 cs.

White Lead—
Antwerp, 8 cks.

Wood Pulp—
Frano, 1,701 bls. W. H. Stott & Co
Gefle, 4,852 "
Gothenburg, 1,044 "
Hamburg, 204 pks
Rotterdam, 116 rolls
Sarpsborg, 4,221 bls. Kellner, Partington Co.
Sundsvall, 1,070 t.
St. John's, N'fd., qty.

Zinc Oxide—
Antwerp, 20 brls.

Zinc White—
Rotterdam, 10 cks.

HULL.

Week ending July 29th.

Acids—
Ghent, 2 cks. Wilson, Sons, & Co., Ld.
Hamburg, 1 "

Asbestos—
Rotterdam, 12 bls. Wilson, Sons, & Co., Ld.

Barium Chloride—
Hamburg, 2 cks. Bailey & Leetham, Ld.

Barytes—
Amsterdam, 44 cks. Hull & Netherlands S. S. Co.
Antwerp, 40 Bailey & Leetham, Ld.
" 31 brls.
Bremen, 22 cks.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. Hull & Netherlands S S. Co.
Rotterdam, 1 ck. "

Coal Products—
Alizarine
Rotterdam, 2 cks., 3 cs., 109 brls., 77 pks. Hull & Netherlands S. S. Co.
Aniline Colours
Rotterdam, 5 brls., 88 cks., 10 cs. Hull & Netherlands S. S. Co
Beta Naphthol
Rotterdam, 1 brl. Hull & Netherlands S. S. Co.
Pitch
Copenhagen, 50 brls. Wilson, Sons, & Co., Ld.
Riga, 49
Tar
Libau, 65 brls.

Colours—
Amsterdam, 1 ck. Hull & Netherlands S. S. Co.
Antwerp, 25 pks. Wilson,
Bremen, 83 cks. Sons, & Co., Ld.
8 cs. J. Pyefinch & Co.
Hamburg, 44 cks.
Rotterdam, 10, 35 brls., 99 pks. Hull & Netherlands S. S. Co.
6 cs.
Rouen, 15 cks. Wilson, Sons, & Co., Ld.
Stettin, 20 "

Chromium Fluoride—
Rotterdam, 10 cs. Hull & Netherlands S. S. Co

Dyestuffs—
Extract
Rouen, 6 cks. Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 10 chts., 8 cs., 15 brls. Hull & Netherlands S. S. Co.
Sumac
St. Petersburg, 2 bgs. Wilson, Sons, & Co., Ld.

Dyewood Extract—
Dunkirk, 21 cks.

Farina—
Stettin, 748 bgs.
Glucose—
New York, 1 brl. Wilson, Sons, & Co., Ld.
Glue—
Christiansund, 1 ck. Wilson, Sons, & Co., Ld.
Dunkirk, 10 "
Hamburg, 100 bgs. "
" 10
Rotterdam, 2 cks. Hull & Netherlands S. S Co.
Glue Stock—
Hamburg, 154 pks. Wilson, Sons, & Co., Ld.
Guano—
Drontheim, 310 bgs. Wilson, Sons, & Co., Ld.
Manure—
Christiansand, 100 bgs. Wilson, Sons, & Co., Ld.
Paraffin Wax—
New York, 100 brls. Wilson, Sons, & Co., Ld.
Potash—
Antwerp, 20 dms. Wilson, Sons, & Co., Ld.
Hamburg, 1 ck. "
Rosin—
Bordeaux, 10 cks.
Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Soap—
Boston, 7 pks. Wilson, 27 bxs. Sons, & Co., Ld.
Dunkirk, 2 cs. "
Rotterdam, 2 Hull & Netherlands S. S. Co.
Soda—
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 30 bgs. 301 cs. 3 brls. Hull & Netherlands S. S. Co.
Antwerp, 240 cs. Hall & Son
Bremen, 1,468 Veltmann & Co.
Ghent, 123 Wilson, Sons, & Co., Ld
Stearine—
Antwerp, 7 bls. Wilson, Sons, & Co., Ld.
Hamburg, 10 cs.
New York, 25 tcs.
Tallow—
Boston, 179 trcs. Wilson, Sons, & Co., Ld.
Dunkirk, 172 cks. "
New York, 14 hds.
Tartaric Acid—
Rotterdam, 17 cks. Hull & Netherlands S. S. Co.
Ultramarine—
Bremen, 12 cks.
Rotterdam, 4 Hull & Netherlands S. S. Co.
Waste Salt—
Hamburg, 200 bgs. (also a qty.)
White Lead
Amsterdam, 23 cks. Hull & Netherlands S. S. Co
Antwerp, 22 Bailey & Leetham, Ld.
Rotterdam, 43 Hull & Netherlands S. S. Co.
10 cs.
Wood Pulp—
Antwerp, 119 pks. Bailey & Leetham, Ld.
Christiania, 2,469 40 bdls. 1,670 bls. Wilson, Sons, & Co., Ld.
Drontheim, 1,600
Gothenburg, 253 bdls. 80 pks. "
Hamburg, 40 bls. Bailey & Leetham, Ld.
Helsingfors, 9 J. Good & Sons
Holmestrand, 2,500
Stettin, 164 pks. Wilson, Sons, & Co., Ld.
Zinc Oxide—
Antwerp. 24 brls. Bailey & Leetham, Ld.
Zinc Sulphate—
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.
Zinc White—
Rotterdam, 50 cks. Hull & Netherlands S. S. Co

GLASGOW.

Week ending August 3rd.

Asbestos—
Genoa, 2 cs. 77 pks.
Asphalt—
Hamburg, 80 cks.
Barytes—
Amsterdam, 24 cks J. Rankine & Son
Rotterdam, 88 pks. "
Boracic Acid—
Leghorn, 9 cks. 8 brls.
Castor Oil—
Leghorn, 13 cs.
Marseilles, 60 cks.
Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. J. Rankine & Son
Rotterdam, 1 ck. 2 "
Chrome Alum—
Rotterdam, 5 cks. J. Rankine & Son
Colours—
Rotterdam, 5 cks. 6 cs. 65 brls. 7 bxs. 63 pks. J. Rankine & Son
Hamburg, 4 cks. 1 cs.
Cream of Tartar—
Bordeaux, 10 cks.
Dyestuffs—
Alizarine
Rotterdam, 47 cks. 11 brls. J. Rankine & Son
Aniline
Rotterdam, 16 cks. 6 cs. J. Rankine & Son
Esparto—
Tripoli (Bar), 1,484 bls.
Glucose—
Montreal, 60 brls.
New York, 1
Glue—
Ghent, 19 cks.
Gluten Meal—
New York, 1,728 bgs.
Gum—
New York, 110 bgs
Paint—
Montreal, 42 pks.
Painters' Colours—
Ghent, 20 cks.
Paraffin Scale—
Philadelphia, 300 brls.
Soap—
Leghorn, 20 cs.
New York, 1,000 bxs.
Soap Stock—
New York, 350 brls.
Starch—
New York, 750 bgs. 250 sks.
Rotterdam, 10 cs. J. Rankine & Son
Stearine—
Amsterdam, 61 bgs. J. Rankine & Son
New York, 44 trcs.
Tartaric Acid—
Rotterdam, 6 cks. J. Rankine & Son
Varnish—
New York, 24 brls. 1 cs.
Waste Salt—
Hamburg, qty.
White Lead—
Rotterdam, 30 pks. 109 cks. 15 brls. J. Rankine & Son
Wood Pulp—
Christiania, 323 bls.
Christiansand, 500
Drammen, 1,210
Gefle, 3 802 Henderson, Craig, & Co.
Skutskar, 1,525 "
Zinc White—
Rotterdam, 25 cks. J. Rankine & Son

TYNE.

Week ending July 29th.

Asbestos—
Hamburg, 42 bgs. Tyne S. S. Co.
Rotterdam, 2 bls. "
Barytes—
Antwerp, 350 bgs. Tyne S. S. Co.
Rotterdam, 45 cks. 180 bgs. "
Cement—
Antwerp, 200 bgs. Tyne S. S. Co.
Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. W. Swanston & Sons
Colours—
Antwerp, 2 cks. Tyne S. S. Co.
Hamburg, 8 cs. "
Rotterdam, 1 ble. "
Glue—
Hamburg, 10 cks. Tyne S. S. Co.
Limestone—
Antwerp, 23 crts. Tyne S. S. Co.
Paint—
New York, 1 bx. Furness, Withy, & Co.
Pyrites—
Huelva, 2,600 t. Tharsis Sulphur & Copper Co.
Red Lead—
Rotterdam, 8 cks. Tyne S. S. Co.
Soap—
New York, 1,200 cs. Furness, Withy, & Co.
Starch—
Antwerp, 5 bgs. Tyne
80 cs. S. S. Co.
Wood Pulp—
Christiania, 684 bls.
Rotterdam, 54 Tyne S. S. Co.
Zinc Oxide—
Antwerp, 5 brls. Tyne S. S. Co.
New York, 100 bls. Furness, Withy, & Co.

GOOLE.

Week ending July 26th.

Alkali—
Calais, 12 cks.
Barytes—
Antwerp, 240 bgs. 56 cks.
Coal Products—
Alizarine
Rotterdam, 35 cks.
Colours—
Hamburg, 8 cks.
Dyestuffs *(otherwise undescribed)*
Amsterdam, 6 cks.
Antwerp, 7
Boulogne, 13
Ghent, 47
Rotterdam, 353 51 cs.
Glycerine—
Hamburg, 1 dm.
Ochre—
Dunkirk, 22 cks.
Potash—
Calais, 3 dms
Dunkirk, 22 cks. 32
Hamburg, 18 2
Potassium Carbonate—
Hamburg, 9 cks.
Saltpetre—
Rotterdam, 100 bgs.

GRIMSBY.

Week ending July 29th.

Barytes—
Rotterdam, 100 bgs.
Chemicals *(otherwise undescribed)*
Antwerp, 20 bgs.
Hamburg, 5 cks.
Coal Products—
Dyes
Hamburg, 7 cks.
Rotterdam, 2

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 2nd.

Acids—
Durban, 50 pks. £40
Sydney, 2 cs. 15
Alkali—
Dunedin, 2 t. 2 c. £12
Shanghai, 5 10
Ammonia—
Pt. Elizabeth, 10 cs. £13
Ammonia (Anhydrous)—
Antwerp, 41 cyldrs. £90
Sydney, 50 315
Ammonium Carbonate—
Adelaide, 6 c. £11
Cologne, 2 t. 49
Copenhagen, 10 15
Newcastle, 1 33
Ammonium Muriate—
Cologne, 19 cks. £92
Ammonium Sulphate—
La Pallice, 26 t. 8 c. £230
Mauritius, 300 3,789
Barium Nitrate—
St. Louis, 10 c. £9
Bleaching Powder—
Durban, 5 cs. £9
Rio de Janeiro, 10 c. 13
Borax—
Amsterdam, 10 c. £25
Dunedin, 5 kgs. 25
Nelson, 12 10
Perth, 47 pt pks. 8
Sydney, 5 18
Carbonic Acid Gas—
Channel Is., 43 tubes £16
Rotterdam, 3 flsks. 14
Caustic Soda—
Fremantle, 8 c. £70
Mauritius, 3 t. 3 21
Nelson, 2 2 18
Penang, 7 6
Pt. Elizabeth, 2 7 48
Chemicals *(otherwise undescribed)*
Adelaide, 8 cs. 34 pks. £129
Antwerp, 122 cks. 307
Auckland, 24 dms. 50
Bilbao, 10 17
Boulogne, 4 30
Brussels, 25 kgs. 1 239
Cape Town, 8 61
Durban, 48 pks. 55
Genoa, 20 180
Hamburg, 45 3 cks. 515
Leghorn, 10 kgs. 63
Lisbon, 9 cks. 3 50
M. Video, 22 32
Nelson, 10 10
New York, 4 120
Rotterdam, 11 kgs. 81
Shanghai, 25 43
Sydney, 9 15
Wellington, 24 30
Citric Acid—
Adelaide, 1 c. £9
Brisbane, 5 36
Delagoa Bay, 1 kg. 10
Genoa, 1 t. 10 180
Ibau, 2 19
Napier, 2 10
Nelson, 1 10
Pt. Elizabeth, 6 54
Rangoon, 1 cs. 5
Shanghai, 1 c. 8
St. Petersburg, 4 45
Sydney, 10 72
Townsville, 5 cs. 25

Coal Products—
Alizarine
Dunedin, 8 cks. £135
Invercargill, 7 125
Aniline
Adelaide, 1 cs. £7
Sydney, 1 8
Benzol
Rotterdam, 40 cks. £140
Carbolic Acid
Adelaide, 4 cs. £16
Antwerp, 55 cks. 447
Calcutta 50 dms. 16
Delagoa Bay, 200 32
Gutujewsky, 34 193
Ludwigschafen, 49 213
St. Malo, qty. —
Yokohama, 200 607
Creosote
New York, 500 cks. £390
St. Malo, 45,200 galls. 416
Dyes
Boulogne, 2 cks. £36
Wellington. 8 pks. 138
Naphthaline
Amsterdam, 1 ck., 9 bgs. £8
Antwerp, 1 ck. £9
Montreal, 87 90
New York, 128 109
Paris, 22, 77 bgs. 90
Philadelphia, 650 158
Shanghai, 40 cks. 70
Stettin, 20 51
Yokohama, 10 kgs. 5
Pitch
Antwerp, 255 t. £306
Auckland, 10 cks. 2 cs. 7 pks 12
B ston, 500 265
Helsingfors, 300 t. 370
Montreal, 348 brls. 80
New York, 554 bgs. 106
Prussian Blue
Antwerp, 4 cks. £74
Tar
Colombo, 12 cks, 20 rnlts. £31
Durban, 50 dms. 20
E. London, 50 6
Grenada, 10 brls. 5
Helsingfors, 1,200 735
Pt. Elizabeth, 325 14
Yokohama, 120 43
Coal Products (*otherwise undes.*)—
Durban, 600 pks £60
Newcastle, 30 dms. 9
Copper Sulphate—
Amsterdam, 2 t. 1 c. £45
Auckland, 4 6
Gibraltar, 13 11
Newcastle, 1 25
Pt. Elizabeth, 4 6
Cream of Tartar—
Cape Town, 10 c. £38
Dunedin, 5 19
Hobart, 11 37
Libau, 5 cks. 20
Nelson, 10 50
Newcastle, 15 57
Sydney, 2 t. 151
Wellington, 2 8
Disinfectants—
Adelaide, 6 pks. £12
B. Ayres, 14 dms. 15
Durban, 31 pks. 23
Perth, 20 dms. 18
Sydney, 4 cs. 11
Manure—
Auckland, 50 t. £158
Dunkirk, 130 697
Grenada, 50 130
Hamburg, 99 556
Mauritius, 10 13
Morlaix, 105 600
Nitric Acid—
Penang 13 c. £10
Oxalic Acid—
Melbourne, 1 t. 1 c. £31
Oxygen Gas—
Amsterdam, 1 cs. £14
Phosphoric Acid—
Mauritius, 15 t. £199
Potash—
Fremantle, 10 c. £43
Sydney, 5 5
Potassium Carbonate—
Adelaide, 10 c. £8
Potassium Cyanide—
Delagoa Bay, 2 t. £189
Fremantle, 3 17 c 346
Melbourne, 16 7 1,506
New York, 270 cs. 1,428
Sydney, 80 cks. 50 1,455
Townsville, 3 t. 322

Potassium Prussiate—
Antwerp, 6 c. £23
Genoa, 30 cks. 235
Yokohama, 10 34
Salammoniac—
Lisbon, 1 t. 6 c. £51
Salt Cake—
Antwerp, 130 t. £250
Saltpetre—
Durban, 10 c. £11
Hamburg, 1 t. 20
Lisbon, 5 10 104
M. Video, 1 2 22
Newcastle, 10 10
Sheep Dip—
B. Ayres, 10,100 cs. £2,646
Delagoa Bay, 50 dms. 11
Durban, 2 6
Giborne, 50 88
Jamaica, 20 9
Launceston, 10 kgs. 30 220 135
Melbourne, 250 438
Nelson, 45 cks. 79
Odessa, 200 350
Sydney, 500 875
Soda—
B. Ayres, 2 c. £5
Singapore, 1 t. 12 5
Sydney, 14 25
Sodium Bicarbonate—
Cape Town, 2 t. £14
Durban, 10 c. 7
Fremantle, 11 7
Launceston, 1 5
Pt. Elizabeth, 10 6
Thursday Is., 1 7
Trinidad, 1 5 9
Wellington, 2 10 12
Sodium Carbonate—
Sydney, 5 c. £9
Sodium Hyposulphite—
St. Pirie, 37 t. £160
Sodium Nitrate—
Antigua, 3 t. 5 c. £27
Sodium Prussiate—
Philadelphia, 24 cks. £290
Strontium Nitrate—
St. Louis, 2 t. 4 c. £53
Sulphur—
Nelson, 13 c. £6
Pt. Elizabeth, 1 t. 10
Sulphuric Acid—
Alexandria, 10 cs. £15
Durban, 10 18
Penang, 20 14
Pt. Elizabeth, 83 54
Hamburg, 30 21
Superphosphates—
Riga, 296 t. £740
Tartaric Acid—
Antofagasta 2 c. £12
Fremantle, 5 28
Libau, 2 14
Melbourne, 10 55
Napier, 2 12
Newcastle, 15 86
Pt. Elizabeth 3 17
St. Petersburg, 1 7
Sydney, 10 55
Wellington, 3 18
Washing Powder—
Sydney, 5 t. 15 c. £100

LIVERPOOL.

Week ending August 2nd.

Acetic Acid—
Pasages, 19 c. £23
Rio de Janeiro, 2 t. 2 3 q. 26
Ammonia—
Rio de Janeiro, 1 t. 1 c. £21
Ammonia (Liquid)
Coquimbo, 4 cs. £6
Valparaiso, 4 5
Ammonium Carbonate—
Barcelona, 2 t. 2 q. £62
Genoa, 1 25
Lisbon, 17 c. 21
Melbourne, 1 5 33
Newfairwater, 4 10 137
Santander, 1 31
Venice, 1 17 47
Ammonium Muriate—
Antwerp, 14 c. £18
Barcelona, 1 t. 8 29
Genoa, 10 174
Trieste, 1 19
Ammonium Sulphate—
Bilbao, 29 t. 19 c. £376
Bordeaux, 30 £337
Cheribon, 498 4 6,046
Genoa, 10 1 3 q. 1,372
Las Palmas, 45 9 1 556
Malaga, 50 612
New York, 23 10 309
Palermo, 12 13 158
Philadelphia, 50 15 2 635
Samarang, 75 15 930
Sourabaya, 100 15 2 1,209
Bleaching Powder—
Baltimore, 325 cks.
Barcelona, 30
Boston, 738
Calcutta, 150 cs.
Chicago, 37 30 brls 30 bxs.
Cleveland, 20
E. London, 20 dms.
Genoa, 125
Johnsonburg, 151
Kalamzo, 20
Konigsberg, 25
Lisbon, 3
Lowell, 83
Mannsburg, 19
Melbourne, 50 cs.
Middleton, 48
Montreal, 61
Naples, 25
Newport News, 116
New York, 122
Philadelphia, 83
Rouen, 15
Shanghai, 47
Stettin, 23
Venice, 5
Boracic Acid—
Kobe, 2 t. 10 c. £74
Borax—
B. Ayres, 6 c. £5
Brentford, 5 t. 85
Hamburg, 31 3 3 q. 529
Hamilton, 10 1 160
Havana, 4 brls. 17
Kobe, 2 19 2 46
Matanzas, 10 3 7
Montreal, 8 15 143
Newfairwater, 5 15 92
Santiago de Cuba, 10 3 7
Toronto, 8 1 140
Valparaiso, 14 12
Calcium Carbide—
Calcutta, 10 c. £23
Calcium Chloride—
Bari, 30 t. 4 c. £67
Bombay, 13 1 3 q. 43
Genoa, 2 11 6
Sydney, 13 5 32
Caustic Potash—
Baltimore, 1 t. 1 c. £28
New York, 1 5 33
Sydney, 1 30
Caustic Soda—
Adelaide, 52 dms.
Alexandria, 69
Algoa Bay, 55 cs.
Amsterdam 198
Barcelona, 120 20 cks.
Boston, 100
B. Ayres, 265
Callao, 120
Cartagena, 30
Chicago, 15 20 brls. 50 bxs.
Cienfuegos, 12
Curityba, 20
Delagoa Bay, 20
Fairwater, 35
Galatz, 16
Genoa, 741
Ghent, 35
Gutujewsky, 30
Hamburg, 10
Havana, 100
Jaffa, 50
Kavalla, 6
Kobe, 277
La Canee 20
La Guayra, 5
Leghorn, 120
Limassol, 15
Malaga, 5 cs. 73 19 cks. 100 pks.
Malta, 11
Melbourne, 221
Messina, 35
M. Video, 205
Montreal, 100
Napance, 40
Naples, 53
New York, 300 100 brls.
Oporto, 104
Palermo. 35
Parahyba, 10
Pasages, 30
Pernambuco, 50
Philadelphia, 15
Providence, 100
Rio de Janeiro, 65
Rotterdam, 35
Rouen, 57
Samarang, 20
San Francisco, 70 15
Santander, 50
Santos, 35
Seville, 223 16 cks.
Singapore. 60
St. Stephens, 50
Stettin, 25
Sydney, 170
Tampico, 116
Tarragona, 50
Trieste, 30
Tunis, 60
Valencia, 65 25
Vigo, 5
Yokohama. 100
Chemicals (*otherwise undescribed*)
Alexandria, 10 bls. £33
Barcelona, 10 33
Bremen, 2 cks. 24
B Ayres, 10 t. 19 c. 3 q. 55
Calcutta, 18 14 94
Halifax, 5 25
Havana, 4 2 8
Hiogo, 10 cks. 81
Lisbon, 15 t. 1 1 30
Madras, 6 2 2 23
Malaga, 34 brls. 28
Maranham, 10 kgs. 3
Marseilles, 11 43
Melbourne, 20, 8 cks. 47
Naples, 4 33
Odessa, 8 7 c. 1 114
Palermo, 2 16
Pernambuco, 5 t. 30
Philadelphia, 14 16 376
Rio de Janeiro, 2 200
Sydney, 5 3 25
Volo, 1 brl. 8
China Clay—
Baltimore, 100 cks.
Barcelona, 12
Bombay, 163
Boston, 1,653
Calcutta, 320
Maranham, 28
Melbourne, 10
Naples, 40
Newport News, 300
New York, 239 500 bgs.
Philadelphia, 600 250 brls.
Rio de Janeiro, 140
Roaring Springs, 502 500 bgs.
Trieste, 100
Coal Products—
Alizarine
New York, 5 cks.
Aniline Colours
Boston, 2 kgs. 1 tcs.
Shanghai. 25 cs.
Aniline Dyes
Callao, 2 cks.
Aniline Salt
Alexandria, 5 kgs.
Genoa, 2½ t.
Leghorn, 3 brls.
New York, 8, 52 cks.
Piræus. 20 20
Carbolic Acid
Amsterdam, 1 t. £80
Baltimore, 16 c. £32
Canada, 5 15
Hiogo, 4 3 230
Singapore, 10 dms. 7
Creosote Oil
Antwerp, 24 cks.
Pitch
Antwerp. 65 brls.
Galatz, 2 t. 16 c.
Tar
B. Ayres, 20 brls. 30 dms.
M. Video, 10
Philadelphia, 100
Rotterdam, 24 cks.
Copperas—
B. Ayres, 4 t. 5 c. £8
Larnaca, 2 10
Valparaiso, 6 5
Copper Sulphate—
Amsterdam, 3 t. 2 c. £76
Copenhagen, 3 1 2 q. 76
Montreal, 13 319
Naples, 14 9 3 374
Odessa, 2 1 51
Rotterdam, 1 1 25
Disinfectants—
Alexandria, 10 c. £5
Antwerp, 6 10

Larnaca, 42 pks. 31
Madras, 30 cks. 16
Rio de Janeiro, 30 dms.
Sydney, 7 cs. 16

Dried Blood—
Teneriffe, 1 t. £8

Glycerine—
Barcelona, 1 t. £48
Hamburg, 1 40
Havana, 2 c. 3 q. 19
Shanghai, 5 10
Vera Cruz, 2 19 120

Lead Acetate—
Havana, 1 t. 2 q. £24

Magnesia—
Beyrout, 26 cs.
Genoa, 1
Gothenburg, 5 cks
Havana, 4
M. Video, 1
Paris, 20

Manure—
B. Ayres, 2 t. 6 c. 1 q. £50
Batavia, 12 7
Bordeaux, 11 5 39
Gd. Canary, 23 94
Havre, 19 19 3 100
Las Palmas, 18 209
Marseilles, 14 1 49
Teneriffe, 29 14 313

Muriatic Acid—
B. Ayres, 6 cbys. £5

Oxalic Acid—
Vera Cruz, 3 cks. £33

Paint—
Antwerp, { 37 kgs. 2 dms. 8 cks.
Beyrout, 90
B. Ayres, 5
Caiffa 20 bgs.
Calcutta, 10 1
Callao, 8
Campeche, 1 cs. 2
Ceara, 5
Conakry 94 28 dms.
Constantinople, 230
Ferrol, 1
Gibraltar, 48 45 pks.
Hamburg 35 3
Havana, 3
Lagos, 20 dms.
Manaos, 10
Manila, 50
Maranham, 2
Mayaguez, 6
M. Video 47 cs.
Matanzas, 7
Nassau, 11
New York, 9 20 dms.
Para, 4 6 pks.
Pt. au Prince, 40
Pt. Said, 31 dms
Rangoon, 40
Rio de Janeiro, 14 17
Savanilla, 50 2
Shanghai, 703
Sierra Leone, 14
Smyrna, 200
St. John's, N'fd, 534
Tripoli 25
Valparaiso, 189 pks.
Yokohama, 1,000

Painters' Colours—
Akassa, 35 kgs.
B. Ayres, 20 cks.
Callao, 10 cs.
C. Coast Castle, 200 dms.
Cape Town, 5 brls.
Cardenas, 20
Galveston, 30 67
Halifax, 12 cks.
Havana, 5
Hong Kong, 10
Lagos, 50
Maranham, 2
Montreal, 8
Moulmein, 1 cs.
M. Video, 23 20 crts. 20
Nassau, 4
New York, 2
Pernambuco, 10
Ponce, 1 kg. 6
Rotterdam, 5 bgs.
Salonica, 2
Toronto, 12

Paraffin Wax—
Bordeaux, 15 bgs.
Galata, 40 cs.
Gijon, 16
Palermo, 10
Patras, 11
Rio de Janeiro, 6
Rouen, 6
Syra, 12

Pearl Ash—
Hamburg, 9 c. 2 q. £17

Phosphorus—
Hamburg, 21 t. £175
Hiogo, 10 cs. 75
Montreal, 1 14
M. Video, 8 c. 48
Shanghai, 44 cs. 381
Yoko, 40 300
Yokohama, 30 225

Phosphorus (Amorph.)—
Hiogo, 110 cs £1,155
Hong Kong, 10 105

Picric Acid—
New York, 5 t. £470

Potassium Bicarbonate—
New York, 10 c. 2 q. £16

Potassium Bichromate—
Alexandria, 1 t. £35
Piræus, 2 3 c. 56

Potassium Carbonate—
Santos, 9 c. 3 q. £10
Valencia, 1 t. 10 24

Potassium Chlorate—
Calcutta, 10 cks. £17
Hiogo, 12 t. 10 c. 401
Kingston, 3 90
Kobe, 2 10 75
New York, 5 150
Punta Arenas, 5 150
Rotterdam, 10 17
Sydney, 3 93

Salammoniac—
Alexandria, 2 t. £65
Beyrout, 1 10 c. 48
Galatz, 3 5
Madras, 1 5 2 q. 37
Marseilles, 1 3 37
Venice, 18 27

Salt—
Akassa, 455 t. 14 c.
Algoa Bay, 53 13
Baltimore, 189 4 5 0 sks.
Boston, 2,402 bgs. 2, 01
Brass, 100
Brisbane, 100 t.
Cabinda, 10
Calcutta, 3 912
Cameroons, 64
Charlottetown, 500
Christiania, 5
Ghent, 60
Gibraltar, 50 cs.
Halifax, N.S., 100
Hamburg, 2 18 c.
Honolulu, 15
Lagos, 150
Landana, 11 2
Montreal, 225 9
Monrovia, 12 10
New York, 133
Para, 950
Quebec, 92
Rangoon, 1,000
Salt Pond, 25
Sapeli, 10
Stockholm, 100
Sydney, 180

Salt Cake—
Antwerp, 240 t. £310
Delagoa Bay, 10 4 c. 25
Melbourne, 25 19 68

Saltpetre—
Lisbon, 1 t. 1 c. 3 q. £18
Maranham, 1 1 2 23
Parnahyba, 4 4

Sheep Dip—
Bahia Blanca, 12 t. 3 c. 2 q. £250
B. Ayres, 19 13 420
Montreal, 3 cks. 10
Punta Arenas, 20 110
New York, 3 t. 13 55

Soap—
Adjuah, 100 bxs.
Akassa, 96
Alexandria, 34 cs.
Algoa Bay, 165
Antwerp, 53
Bombay, 1,910
B. Ayres, 35 dms.
Brussels, 1,900
Cairo, 50
C. C. Castle, 2
Cape Town, 1,742 5
Calcutta, 151 250 bdls.
Calmar, 250
Cartagena, 1
Christiania, 160
Colombo, 26
Conakry, 50
Curacao, 165
E. London, 4 9 cks.
Genoa, 50
Gibraltar, 135 40
Half Jack, 50
Halifax, N.S., 400
Havana, 250
Hong Kong, 1,808
Honolulu 50
Karachi, 500
Kingston, 33
Kotonou, 50
Lagos, 100
La Guayra, 5
Leghorn, 13
Madras, 7
Malta, 150
Manaos, 760
Maranham, 1
Matanzas, 50
Monrovia, 87
M. Video, 10
Montreal, 4 brls.
Mossel Bay, 685
Moulmein, 1 cs.
Pt. Elizabeth, 58
Pt. Louis, 200
Pt. Natal, 16
Rangoon, 5 1
Rotterdam, 315
St Thomas, 150
St. John's, N'fd. 55 10
Santiago de Cuba, 1
Shanghai, 5
Sierra Leone, 11
Singapore, 275
Stockholm, 10
Sydney. 125 3,500
Trinidad, 1,200 1
Valparaiso, { 50 kgs. 1 8
Vancouver, 8

Soda—
Ceara, 6 brls.
Havana, 25 kgs.

Soda Ash—
Amsterdam, 100 bgs.
Bombay, 20 cks.
Boston, 26 tcs. 35
Brisbane, 191
B. Ayres, 623
Calcutta, 41
Callao, 114
Copenhagen, 210
Genoa, 720
Ghent, 167
Gothenburg, 11
Kobe, 119
Leghorn, 200
Limon, 15
Lisbon, 22
Madras, 10
Maranham, 50 brls.
Melbourne, 50
Oporto, 20 9
New York, 500 81 tcs. 75
Philadelphia, 53 10
Reinosa. 15
Rio de Janeiro, 6
Samarang, 13
Santos, 50
Sherbrooke, 810
Smyrna, 300
Sydney, 529
Tampico, 200
Toronto, 200
Turin, 102
Venice, 100 28
Yokohama, 200

Soda Crystals—
Boston, 280 brls.
Calcutta, 28
Fredericton, N.B., 20 kgs.
Hong Kong, 2 cks.
Lisbon, 6
M. Video, 99
Montreal, 519
New York, 265 504
Oporto, 30
Pa, 140 280
Palermo, 20
Philadelphia, 190
Pt. Natal, 30
Salonica, 12
St. John's, N'fd, 100

Sodium Bicarbonate—
Algoa Bay, 20 kgs.
Antwerp, { 30 bgs. 160 kgs.
Barcelona, 170 3 cks.
Bilbao, 50 brls.
Bombay, 60
Bourgas, 10
Brisbane, 470
B. Ayres, 100
Calcutta, 1,000
Cape Town, 20
Catania, 75
Colombo, 20
Fredericton, N.B., 100 dms.
Gibraltar, 20
Halifax, N.S., 102
Hamburg, 60
Hamilton, 50
Karachi, 255
London, 50
Madras, 75
Malaga, 40 52
Malta, 31
Maryborough, 40
Melbourne, { 50 bgs. 430 kgs.
Montreal, { 100 bgs. 75 kgs. 130
Naples, 87 bgs.
Palermo, 40 kgs.
Pt. Natal, 30
Rotterdam, 56
Rouen, 245
Salonica, 20
Santiago de Cuba, 12
St. John's, N'd., 40
St. John, N.B., 502
Seville, 20
Sydney, 764 15 cks.
Tampico, 45
Townsville, { 90 bgs. 100 kgs.
Trinidad, 102
Valencia, 10
Valparaiso, 175
Varna, 72
Venice, 64
Yokohama, 300

Sodium Bichromate—
Antwerp, 2 cks.
Nantes, 6

Sodium Chlorate—
Boston, 100 kgs.
Gutujewsky, 350
Hamburg, 20

Sulphur—
Boston, 160 t. 4 c. £682
Larnaca, 2 23
Para, 10 10
Salaverry, 13 1 q. 4

Tin Crystals—
Lisbon, 1 ck. £20

Varnish—
Antwerp, 3 cks.
Bilbao, 6
B. Ayres, 6 cs.
Genoa, 17 pks.
Hiogo, 30 dms.
Karachi, 4
Oporto, 3
Rotterdam, 1

White Lead—
Constantinople, 2 cks.

Zinc Sulphide—
Naples, 2 t. £32

MANCHESTER.

Week ending August 2nd.

Bleaching Powder—
Rio de Janeiro, 12 cs.

Bone Waste—
Belgium, 100 bgs.

Caustic Soda—
Bahia 40 dms.
Germany, 6 cks.
Jaffa 150
Monastier, 5
Tunis, 3

Chemicals *(otherwise undescribed)*
Basle, 20 kgs. 3 cs.
Beyrout, 36 brls.
Mersyne, 30
Tunis, 1 ck. 6

Coal Products—
Aniline Oil
Germany, 10 dms.
Holland 1
Aniline Salt
Germany. 10 cks.
Carbolic Acid
Beyrout, 3 brls.
France, 78 btls.
Germany, 24 cks.
Pitch
Belgium. 596 t. 14 c.
Tar Oil
Germany. 5 brls.
Toluol
Germany, 40 dms.

Colours—
Germany, 5 cs.

Copperas—
Alexandria, 210 brls.
Copper Sulphate—
Beyrout, 2 cks.
Disinfectants—
Bombay, 25 kgs.
Dyestuffs—
Extract
France, 1 ck.
Sumac Extract
Holland, 1 ck.
Farina—
Bombay, 30 bgs.
Germany, 10
Gamma Acid—
Germany, 12 cks.
Glue—
Germany, 10 cks.
Linseed Oil—
Alexandria, 30 brls.
Mineral White—
Rio de Janeiro, 16 bgs.
Paint—
Hamburg, 4 cks 37 dms.
Mersyne, 16 kgs.
Painters' Colours—
Mersyne, 4 kgs
Paraffin Wax—
Monterey, 100 bls.
Salammoniac—
Alexandria, 20 cks.
Bagdad, 4 brls.
Beyrout, 5
Tunis, 1
Salt—
France, 10 bgs.
Soap—
Malta, 5 cs.
Soda Crystals—
Sfax, 15 brls.
Sodium Arseniate—
Holland, 1 kg.
Sodium Bicarbonate—
Alexandria, 50 kgs.
Sodium Naphthionate—
Holland, 15 cks.
Sodium Silicate—
Tunis, 5 cks. 15 brls.
Sulphuric Acid—
Rio de Janeiro, 16 cs.
Turpentine—
Alexandria, 5 brls.
Venetian Red—
Alexandria, 70 cks.

HULL.

Week ending July 29th.

Alkali—
Messina, 40 bgs
Ammonium Sulphate—
Bremen, 300 bgs.
Messina, 100
Palermo, 100
Rotterdam, 1,495
Stettin, 500
Basic Slag—
Gothenburg, 1,020 bgs.
Bleaching Powder—
Boston, 120 cks.
Danzig, 24
Chemicals (*otherwise unde cribed*)
Amsterdam, 77 cks.
Antwerp, 7 2 cs.
Bergen, 3 4
Bombay, 919
Christiania, 2 1,215 slbs.
Danzig, 20 pks.
Drontheim, 5
Gothenburg, 1 27 18
Hamburg, 23 93
Karachi, 100
Riga, 1
Rotterdam, 8 40
Stettin, 134 bgs. 10 8
St. Petersburg, 17 1
Trieste, 21
Venice, 20
Coal Products—
Creosote
Boston, 101 cks.
Pitch
Antwerp, 134 t.
Tar
Bergen, 5 cks.
Danzig, 4
Harlingen, 5
Rotterdam, 25
Cottonseed Oil—
Amsterdam, 10 t. 1 c.
Antwerp, 11 17
Christiania, 17
Drontheim, 3 6
Dunkirk, 5 19
Hamburg, 9 1
Rotterdam, 25 5
Rouen, 30 4
Dyestuffs—
Cutch
Bremen, 40 bxs.
Glue—
Bergen, 3 bls.
Gothenburg, 3
Hamburg, 20 kgs.
Linseed Oil—
Antwerp, 7 t. 7 c.
Bari, 10
Bergen, 1 4
Bombay, 7 2
Christiania, 3 2
Christiansand, 1 15
Drontheim, 2 2
Hamburg, 1
Karachi, 3 2
Rouen, 3
Stavanger, 7 8
Manure—
Amsterdam, 20 cks.
Paint—
Bergen, 1 ck.
Bombay, 238 10 cs.
Karachi, 2
Stavanger, 1
Painters' Colours—
Abo, 14 dms.
Amsterdam, 26 cks.
Antwerp, 160 20 cs. 76 pks. 26 dms.
Bergen, 2 80
Bombay, 326 114 40
Boston, 66
Christiania, 30
Christiansund, 1 2
Danzig, 20
Dunkirk, 8
Gothenburg, 2
Hamburg, 36 10
Harlingen, 2
Karachi, 149
Rotterdam, 21 5
Rouen, 33 4
Stettin, 6 6
St. Petersburg, 27
Venice, 20
Soap—
Amsterdam, 290 cs.
Tallow—
Amsterdam, 10 cks.
Danzig, 50
Varnish—
Bari, 2 cs.
Bombay, 40 cks.
Dunkirk, 1 cs.
Karachi, 4
Stettin, 5

GLASGOW.

Week ending August 3rd.

Ammonium Carbonate—
Hamburg, 7 c.
Ammonium Sulphate—
Antigua, 30 t. 13 c. 1 q.
Barbadoes, 101 8
Demerara, 121 14 1
Hamburg, 182
U.S.A., 5 1 3
Barium Chloride—
Canada, £60
Borax—
Montreal, £41 10s.
Coal Products—
Creosote Oil
Christiania, £60
Pitch
Canada, £146
Gothenburg, 120
Madras, 41 5s.
Malaga, 133 18
Tar
Danzig, 171 t.
Penang, £60
Riga, 1,000
Singapore, 75
Dyestuffs—
Logwood
Canada, £61
Quebracho Extract
Belgium, £25
Sumac Extract
Canada, £32
Guano—
Antigua, 16 t.
Glue—
Shanghai, £220
Iron Oxide—
B. Ayres, £20
Lead Acetate—
Canada, £80
Linseed Oil—
Alexandria, 1 t. 15 c. 2 q.
Trinidad, 3 13
Manganese Oxide—
New York, £105
Manure (*otherwise undescribed*)
Dunedin, 100 t.
Trinidad, 10 and £40 worth
Wellington, 50
Paint—
Cienfuegos, 2 t. 13 c.
Havana, 1 17
Painters' Colours—
Barbadoes, £67
Beyrout, 124
Calcutta, 56
Colombo, 61 16s.
Demerara, 75
Durban, 38 10
Natal, 66
Rangoon, 326
Trinidad, 39
U.S.A., 119
Paraffin Wax—
Danzig, 13 t.
Riga, £40
Rotterdam, 190
Phosphates—
Coconada, 5 t. 18 c.
Potassium Bichromate—
Alexandretta, £140
Amsterbam, 558
Antwerp, 169
Canada, 201
Hiogo, 1,055
Madras, 66
Rotterdam, 56
Soap—
Alexandria, 7 c. 2 q.
Penang, 1 t. 5
Singapore, 18 1
Tientsin, 7 18 2
Sodium Bichromate—
Antwerp, 1 t. 2 c.
Sulphuric Acid—
Rangoon, £344
Tallow—
Oporto, 1 t. 13 c. 2 q.
White Lead—
Shanghai, £97

TYNE.

Week ending July 29th.

Alkali—
Amsterdam, 5 t. 15 c. 3 q.
Gothenburg, 5 8 1
Hamburg, 5 7 3
Rotterdam, 4 19 3
Ammonium Sulphate—
Rotterdam, 50 t. 11 c. 3 q.
Antimony—
Hamburg, 5 t.
New York, 2 5 c.
Barium Binoxide—
Ancona, 10 t. 11 c. 1 q.
Rotterdam, 10 11 3
Barium Carbonate—
Hamburg, 152 t.
New York, 30 19 c. 2 q.
Bleaching Powder—
Antwerp, 5 t. 15 c.
Christiania, 23 11
Copenhagen, 5 2
Gothenburg, 25 3 2 q.
Hamburg, 28 1 2
New York, 60 17 1
Rotterdam, 311 2 2
Castor Oil—
Montreal, 20 cs.
Caustic Soda—
Abo, 1 t.
Antwerp, 15 1 c. 3 q.
Copenhagen, 2 18
Libau, 20 7 3
N. Orleans, 91 9
New York, 66 19 1
Chemicals (*otherwise undescribed*)
Abo, 4 c.
Coal Products—
Carbolic Acid
Odense, 12 c. 1 q.
Tar
Reval, 2 t. 10 c.
Colours—
New York, 11 t. 1 c. 3 q.
Fluor Spar—
New York, 201 t. 1 c.
Glue—
Bergen, 8 c.
Litharge—
Copenhagen, 11 c.
Hamburg, 1 t. 8 1 q.
Magnesia—
Ancona, 560 lbs.
Christiania, 2 c. 2 q.
Orange Lead—
Hamburg, 8 cks.
Orange Mineral—
New York, 2 t. 10 c.
Paint—
Amsterdam, 1 c.
Bergen, 1
Pyrites (Sulphur)—
Huelva, 2,585 t.
Red Lead—
Christiania, 4 t. 18 c. 2 q.
Copenhagen, 7 11
Hamburg, 10 15 1
Libau, 2 17
Salt—
Reval, 25 t.
Soda—
Abo, 5 t.
Amsterdam, 9 19 c. 2 q.
Christiania, 7 7
Sodium Hyposulphite—
N. Orleans, 25 t. 3 c
New York, 12 10
Sodium Sulphate—
Antwerp, 120 t.
Frano, 445
Libau, 165 2 c. 3 q.
Norrkoping, 463
Sulphur—
Gothenburg, 25 t.
Superphosphate—
Frederikshavn, 515 t.
Gothenburg, 41 13 c. 1 q.
White Lead—
Christiania, 1 t. 2 c. 1 q.
Copenhagen, 1 2
Montreal, 110 cks.

GOOLE.

Week ending July 26th.

Chemicals (*otherwise undescribed*)
Amsterdam, 47 cks.
Antwerp, 8
Hamburg, 5 crbys. 16 cks. 1 dm.
Rotterdam, 10
Coal Products (*otherwise undes.*)—
Amsterdam, 50 cks.
Antwerp, 100
Boulogne, 9 6 cs.
Ghent, 2 1
Hamburg, 11
Rotterdam, 1
Coal Products—
Benzol
Boulogne, 48 cks.
Dyestuffs (*otherwise undescribed*)
Hamburg, 2 cks. 1 cs.
Rotterdam, 44

GRIMSBY.

Week ending July 29th.

Ammonium Sulphate—
Hamburg, 500 cs.
Chemicals (*otherwise undescribed*)
Malmo, 10 cs.
Coal Products (*otherwise undes.*)—
Dieppe, 81 cks. 3 cs. 7 pks.
Hamburg, 15 btls. 11
Rotterdam, 10 25 cks.

PRICES CURRENT.

WEDNESDAY, Aug. 9, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 & 8/3		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	18	15	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. .. per ton	12	6	3
,, ,, (grey) Hull .. .. ,,	12	3	9
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	42/6 to 65/-		
Bleaching Powder, 35 % .. .. nett ,,	4	15	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	11	10	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	8¾
,, 50/90 ,, ... ,,	0	0	10
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7¾
,, (liquid 95/97%) .. .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	4
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4¼
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	10	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	2½
Copper .. .. per ton	76	10	0
,, Sulphate .. .. ,,	24	0	0
,, Oxide (copper scales) .. .. ,,	57	0	0
Glycerine (crude) 80% .. .. ,,	27	0	0
,, (distilled S.G. 1250°) .. .. ,,	45	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	15	15	0
,, Litharge Flake (ex ship) .. .. ,,	17	0	0
,, Acetate (white ,,) .. .. ,,	22	0	0
,, ,, (brown ,,) .. .. ,,	17	15	0
Carbonate (white lead) pure .. .. .. ,,	18	10	0
Nitrate .. .. ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) .. .. .. per ton	4	17	6
,, ,, (grey) (ex ship) .. .. ,,	7	15	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	0	0
Linseed .. .. ,,	22	0	0
Stearine .. .. ,,	26	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	5	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % .. .. per ton	23	10	0
,, ,, ,, 75/80 % .. ,,	18	10	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	0	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	7⅞
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	3¼
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	12	6
,, Acetate (ex-ship) .. .. ,,	13	0	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¼
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	8	10	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	7	17	6
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	6	17	6
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	2	6
,, ,, 77/78 % powdered (99 % hydrate) ,, (10 ton lots)	11	10	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	7½
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	6
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	4	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4½
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	6	15	0
,, (Roll Brimstone) .. .. ,,	6	0	0
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	27	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	150	0	0
Zinc (Spelter) .. .. ,,	24	5	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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LATE ADVERTISEMENTS.

SOUTH AFRICA.—A gentleman, who has just returned from South Africa, will be glad to hear from manufacturers of Sheep Dips, Disinfectants, etc., who desire a Representative to introduce their products into that country. Has a thorough knowledge of the trade and a good connection, having been engaged in a similar capacity for some years.—Apply to "Africa," *Chemical Trade Journal* Office, Manchester.

CAST IRON PANS.—5 ft. diam. by 4 ft. deep, 370 gallons capacity: Thirty or more.—R. H. Pickles & Co., Prussiate Works, Droylsden.

RECIPES & INSTRUCTIONS Wanted for making High Grade Concentrated Superphosphates of Lime, 40°/₀ to 45°/₀ (soluble phosphate).—Address, full particulars, price, etc., to "E.W.," at Horncastles, 61, Cheapside, London, E.C.

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CURRENT TOPICS.

OUT OF THE FRYING PAN.

THE powers that be are often inclined to carp about the existing state of affairs connected with the management of chemical and allied works, but sometimes there is a last state which is very much worse than the first, and perhaps we may be pardoned for experiencing a little unholy joy when excessive supervision and complaint bring such a change upon district rulers who have inquisitorial propensities. A case of this nature promises to ripen into the *pis aller* stage in the otherwise beautiful and romantic county of Devonshire. For some time the Guardians in the arsenic districts have had a grievance against the proprietors of arsenic works on the ground that the dangers of arsenic manufacture injured the workers, and threw an excessive number of prematurely incapacitated men upon the Parish.

The *pros* and *cons* of this evidently all-important question are still being argued out, but a fresh turn will probably be given to the discussion by the dispute that has arisen between the directors and shareholders of one of the Devonshire arsenic works. It is now no longer a case of what percentage is thrown on the poor rates, for the works having been closed all the workers have been deprived of their regular means of maintainence. As many of them are too old (or otherwise incapacitated) to find fresh employment, it looks very much as if the Guardians of the neighbourhood will have their hands burdened more heavily without the works than with them. Perhaps they will wish they were back again in the fryingpan soon. At all events, those who are still in it should be more disposed to remain there.

THE PROPOSED NITRATE SELLING SYNDICATE.

In pursuance of our recent remarks concerning the proposal to amalgamate the selling agencies for nitrate of soda, we present a brief digest of the scheme which has been propounded by Messrs. A. Gibbs and Sons, and which is supported by Messrs. Lomax, Cowe, E. W. Vincent, H. A. Rau, and V. Hargrave.

The producers will consign their out-put to Messrs. Gibbs and Sons, who will undertake all transactions connected with sale and transport, and also make advances on nitrate. The same firm are prepared to organise, and also help to capitalise, selling agencies or syndicates in all the chief centres of consumption, with which contracts will be made subject to the approval of the producers. Special rates will be framed both for large and small purchasers, but these terms will only affect prices and not conditions of sale and delivery.

The Chilian producers will have a special Committee in London, which will take counsel with Messrs. Gibbs & Sons in the matter of production. For the first year this will be restricted to 29,000,000 quintals (of 101 lbs. each), the succeeding years being controlled by the consumption during

the previous year, an additional 10 per cent being allowed as a margin. It is proposed that this arrangement shall be adhered to for four years as a minimum, with power to extend it to five years.

Lastly, we come to what the rate of remuneration is to be for the central and local agencies. It seems that Messrs. Gibbs and Sons are to have 1 per cent. commission and the selling syndicates 1½ per cent., with a bonus of 10 per cent. on all sales above a certain price.

Such is the scheme in outline. Doubtless the framers are certain that it will be a good thing for the producers. In some ways we think so ourselves. Still, in other ways we think it will do no harm to other nitrogenous materials. As far as the nitrate industry alone is concerned we should think the scheme was worth a trial. Things cannot be much, if any, worse than they are at present.

GOLD OUTPUT IN THE RAND.

THE Chamber of Mines at Johannesburg states that the total gold return from the mines of the Transvaal for the month of July amounted to 478,493 ozs, of which the Rand contributed 456,474 ozs. The following table shows how these figures compare with the preceding four years:—

	1895.	1896.	1897.	1898.	1899.
	oz.	oz.	oz.	oz.	oz.
January	177,463	148,178	209,832	336,577	431,010
February	169,295	167,018	211,000	321,238	425,166
March	184,945	173,952	232,067	347,643	464,036
April	186,323	176,707	235,698	353,243	460,349
May	194,580	195,008	248,305	365,016	466,452
June	200,941	193,640	251,529	365,091	467,271
July	199,453	203,873	242,279	382,006	474,983
August	203,573	212,429	259,603	398,285	—
September	194,764	202,561	262,150	408,502	—
October	192,652	199,889	274,175	423,217	—
November	195,218	201,113	297,124	413,517	—
December	178,428	206,517	310,712	440,674	—
Total	2,277,635	2,280,885	3,034,474	4,555,009	—

THE GOVERNMENT LABORATORY.

ANNUAL REPORT.

THE report of the principal chemist of the Government Laboratory for the year ended March 31, 1899, has been issued as a Parliamentary paper.

The total number of analyses and examinations made during the year for the Customs department was 8,418, as against 8,047 for the previous year. For excise the number of examinations was 66,423, or an increase of 1,110 over the previous year. The report shows that during the year 57 samples of tea, representing 1,616 packages, were examined and were found to contain exhausted leaves or to be mixed with other substances within the meaning of the Act, and were therefore refused admission for home consumption or were forfeited and destroyed or otherwise disposed of as being unfit for human food.

Of *beer* 3,165 samples, taken from 1,323 publicans, have been analysed, and 421, or 13 per cent. of the samples, were found to have been diluted with water or otherwise adulterated, the dilution in one case being equivalent to ten gallons of water in the barrel of 36 gallons. All the samples from provincial towns, with one exception, were genuine, and the dilution, as in previous years, has been shown to be almost entirely confined to London.

One hundred and fifty-seven samples of *tobacco* taken from manufacturers and dealers have been analysed for adulteration generally. Of these 132 were found to be genuine and 26 adulterated. In no case was there reason to believe that the adulteration had taken place in this country. The quantity of tobacco cleared for consumption was 8,728,920 lbs. more than that cleared in the preceding year. The larger proportion of this increase, however, was abnormal, and caused by exceptionally heavy clearances in the last month of the year, owing to manufacturers anticipating that the duty would be increased by the Budget for the current year. Assuming, however, that the clearances for March had only been equal to the average clearances for the previous 11 months, there would have been an increase of 3,599,249 lbs. cleared during the year, and a consumption per head of the population of 1lb. 14oz. This, following upon an unusual increase during the previous year, shows that the reduction of duty, and the further restriction of the limit of moisture, are having a marked effect upon the quantity of tobacco cleared for consumption.

During the year, 1,083 samples of *butter* were examined, of which only two were reported adulterated, as against 25 last year and 46 the year before. This is a marked improvement on previous years, for not only has the number of adulterated samples rapidly diminished year by year, but the analytical results show a distinct improvement in the quality of those reported genuine. No samples have this year been reported as of doubtful purity, since, although certain samples gave reactions for cottonseed oil, the amount indicated was not more than might be due to feeding on cotton-cake, whilst the other analytical results of these samples were such as to preclude the idea of any admixture of margarine containing cottonseed oil. The results of the investigation made at Wye, and in the laboratory last year, into the effect of feeding cows upon oil-cakes proved beyond doubt that the characteristic constituent of cottonseed oil passes into the milk of cows fed upon cotton-cake. With regard to the use of boracic preservative in butter, France again heads the list of European countries, and Holland comes next, whilst Danish and Scandinavian butters were entirely free from this preservative. The majority of the butters from the more distant colonies, as Australia and New Zealand, contained boric preservative. The use of artificial colouring matters derived from coal tar is now much in vogue, particularly in the United States, and to a less extent in Holland. It is noted that the great majority of the margarines examined contained cottonseed oil, boric preservative, and aniline colouring matters. At the instance of the Local Government Board four samples of imported cream from Holland, Denmark, Norway and Sweden were examined and found to be genuine.

General.—A considerable amount of attention has been given to the provisions of the new Food and Drugs Bill introduced into the House by the President of the Board of Agriculture. The various proposals and suggestions made upon it by numerous public bodies, agricultural and other associations and traders, and amendments proposed in committee, have been submitted to the Principal Chemist by the Board of Agriculture for criticism or comment, embracing questions concerning imported dairy products, margarine and margarine cheese, the use of preservatives and colouring matter in milk and butter, standards of purity, &c. In connection with the question of the admixture of butter with margarine, 26 samples were examined for that Board for the purpose of ascertaining the character of mixtures at present upon the market.

The work done for the Home Office has been considerably increased in consequence of the inquiries which were directed to be made by order of the Home Secretary concerning the use of lead compounds in pottery manufacture and the use of ordinary phosphorus in the manufacture of lucifer matches. The Dangerous Trades Committee of the Home Office have also sent a number of substances for examination and report. The samples examined for the War Department exhibit an increase of 29 on those of the previous year. The supply inspection has continued to send a number of food substances from various canteens, and in many cases these samples have proved to be of low quality. For the Army Medical Department a number of medicinal preparations have been examined. A good proportion of these samples exhibited satisfactory conformity with the standards of the British Pharmacopœia, but in several instances they were markedly inferior.

Explosion at a Rubber Works.—An explosion occurred last week at the Ancoats Vale Rubber Works, Manchester, injuring three workmen, Frederick Thomas, James Wayle, and James Browne. They were removed to the Ancoats Hospital, suffering from burns and cuts from broken glass. The property was considerably damaged.

Gunpowder Works Closed.—Considerable surprise has been created in West Calder district by the receipt of an order from the directors of Messrs. Curtis's and Harvey, Limited, to shut down the Mid-Lothian Gunpowder Works at Camilty. The works form part of the large combination in the gunpowder trade which was floated last year with a capital of a million pounds, known as Messrs. Curtis's and Harvey, Limited. Some years ago the works were equipped with a saltpetre factory to save importing this commodity from abroad. For nine years the works were in the hands of a limited company, and, situated as they are in close proximity to the oil industry, a good trade has been built up, one of the local orders amounting to several thousand pounds a year. When the combination was floated the shareholders of the Mid-Lothian company received part cash and part shares in the new company. The combination also owns Roslin and Kames works, and it appears that the directors have decided to close one of their Scotch works and supply the market from the other two. Mid-Lothian has been the one selected to be closed down, and the decision has given rise to surprise and keen disappointment in the district. No date has yet been fixed upon when the closing will be put in force.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Machines for Pulversing and Sifting Salt. G. Appleyard. 15,631. July 31.
Artificial Stone. F. Gernaert and C. Libert. 15,640. July 31.
Manufacture of Nitric Acid. L. Maissin. 15,651. July 31.
An Improved Process of Continuous Tanning. H. H. Lake. 15,652. July 31.
Alternating Automatic Controlling Apparatus for Bacterial Sewage Beds. J. E. Parker. 15,661. July 31.
Improvements in Gas Producers. F. Radcliffe. 15,662. July 31.
Apparatus for the Destruction of Solid Sewage and other Matters. A. E. Brechot. 15,755. August 1.
Purification of Sewage by the Bacterial Method C. J Whittaker. 15,765. August 2.
Obtaining Ammonia and its Salts from the Spent Liquor of Molasses. H. Fischer. 15,815. August 2.
Treatment of Zinc-bearing Ores. A. M. Clark. 15,976. August 4.
Improvements in Refining Oils. T. Macalpine. 15,991. August 4.
Portland Cement from Blast Furnace Slag. C. von Forell. 16,050. Aug. 5.
Purifying Water by the Joint Action of Iron and Ozone. Siemens Bros. and Co., Ld. 16,066. August 5.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Manufacture of Sulphuric Acid. A. J. Boult, 111, Hatton Garden, Holborn Circus, London (communicated by Pratt Process Co., Atalanta, Georgia). Eng. Pat. 10,757. May 23, 1899.

The intimate mixture of the gases in the chamber is ensured by aspirating some of the gases from the rear of the chamber, and forcing them in again at the entrance, along with the fresh gases from the burners and nitre pot. Provision is made for condensing any acid escaping in the gases, and scrubbing them, as they pass to the fan which exhausts and forces these gases; and similar arrangements are made for the gases which pass away from the chamber, and are not passed through again by the fan. There are seven figures illustrating various modes of arranging the plant.

Improvements in or Relating to the Recovery of Nitrous Gases in the Manufacture of Sulphuric Acid. A. J. Boult, 111, Hatton Garden, London (communicated by A. F. Izidore and M. Biscons, Allée des Vitarelles, Toulouse, France). Eng. Pat 19,907. September 20, 1898.

The nitrous fumes from the chambers or Gay-Lussac tower are passed through a conduit in which baffle plates are placed, and over which a stream of sulphuric acid (60° Bé) flows. The conduit is so arranged, however, that the draught is not appreciably obstructed. A current of air can be used in assisting the passage of the gases. The conduit may be of either horizontal or vertical type. There are two illustrations.

Improvements in Apparatus for the Manufacture of Cyanides and Ferro-cyanides from Sulphc-cyanides and the Recovery of Bye-products. J Ra chen and the United Alkali Co., Ld., both of 30, James-street, Liverpool. Eng Pat. 19,767. September 17, 1898.

Nitric acid and the sulpho-cyanides are passed through decomposers to which steam is admitted. The gases evolved are passed through washers and absorbers, which remove the hydro-cyanic acid formed and allow the nitric oxide to pass forward and be re-converted into nitric acid. The specification, which is illustrated by two figures showing the plant in elevation and plan, deals with the construction and general arrangement of the plant.

A Process for the Production of the Light Metals (Potassium, Sodium) and Anhydrous Oxides and Peroxides, and Cyanides of these Metals. G. Wolfram, 1, Sossenheimerstrasse, Rödelheim, Germany. Eng. Pat. 18,604. August 30, 1898.

When a carbide is introduced into a molten alkaline hydrate, decomposition takes place, producing carbon dioxide, hydrogen, and the vapour of the alkaline metal. The latter may be carried off and condensed, or it may be condensed at once and allowed to drip back into the vessel to produce anhydrous oxides. By passing oxygen through the latter, peroxide may be obtained. The introduction of nitrogen into the reaction vessel will yield cyanides. Examples of procedure are given.

A New or Improved Process and Apparatus for Crystallising Sodium Carbonate and other similar Salts in small Crystals. J. Dekker, Wormerveer, Holland. Eng. Pat. 24,978. November 26, 1898.

A series of circular shallow trays are supported on pillars one above the other, through the centres of which a vertical shaft passes, carrying agitating arms. A jet of air is blown across the surface of each crystallising tray from a fan or blower. A lye of about 38° Bé is run into the trays, and in half an hour it is changed into a mass of small crystals. The mother liquor is reduced from the usual 40% to nearer 10%. The crystals are said to be pure and more convenient than the larger washing-soda crystals as now produced.

Improvements in and Relating to the Manufacture of Artificial Manures. A. Wenck, 36, Kaiserstrasse, Magdeburg, Germany. Eng. Pat. 4,714. March 3, 1899.

Nitrifying bacteria are obtained as a culture in a solution of some of the waste to be treated—molasses wash, for instance. From such a culture larger but less intense cultures of spores are produced, which are eventually mixed with sand or powdered lime and dried at a temperature not exceeding 38° C. The waste to be treated is then rendered alkaline with lime and evaporated if liquid. The resulting mass is inoculated with some of the dry culture, about 1 part of bacteria powder to 100,000 of molasses-wash powder being sufficient. On adding to the soil in which moisture is present, the spores germinate and nitrogenous matters present are converted into a form suitable for assimilation by plants.

ESTIMATION OF SULPHUR AND COPPER SULPHATE IN PHYLLOXERA MIXTURES.

THE mixture of sulphur and sulphate of copper, employed now for combating the diseases of the vine, is the object of numerous falsifications; it is therefore useful to have a simple and rapid method of verifying the composition of these mixtures.

In discussing such a method in the *Moniteur Scientifique*, Dr. G. Scarlata says:—"The method now generally in use is quickly performed, but from the point of view of accuracy it leaves much to be desired. It is based on the extraction of the sulphur by sulphide of carbon. Now we know that this extraction may be incomplete if the sample contains the insoluble variety of sulphur.

"In the same way, the volumetric titration of the copper does not give absolute certainty, and in analyses done sometimes by inexperienced chemists, the results depend more or less on the particular conditions in which the operator is placed.

"I may add that, at the present day, *makers* find means, by suitable additions, to falsify the results of the colorimetric titration of the copper, and prevent the complete extraction of the sulphate of copper by water, except when the water is acidulated.

"Having had considerable experience in this class of analysis, I am quite satisfied of the small amount of confidence which should be placed in the methods now used, and I have therefore endeavoured to unite all the conditions necessary for accuracy and rapidity.

"My process is based on the two following principles:—

1. The sulphur can be determined by oxidation and titration of the sulphuric acid formed.
2. The sulphate of copper can be determined by the estimation of the sulphuric acid set at liberty by decomposing the sulphate of copper by sulphuretted hydrogen.

"The following are the details of manipulation:—Treat 1 grm. of the sample with water acidulated with nitric acid, filter, and wash the residue, which serves for the estimation of the sulphur. This residue is placed in a flask with a round bottom and a long neck, and an excess of fuming nitric acid is added. Heat until the oxidation is complete, pour the liquid into a porcelain crucible, rinse the flask with water, and evaporate the whole on a water-bath until the nitric acid is completely eliminated. Take up with cold water, and titrate the sulphuric acid with soda or potash.

"To estimate the sulphate of copper, heat 10 grms. of the sample in a crucible placed on a piece of asbestos card, until the sulphur is completely eliminated by volatilisation and combustion. Add sulphuric acid, and heat until white fumes cease coming off. Take up with water and treat the solution with sulphuretted hydrogen, filter off the sulphide of copper, wash with water containing a little sulphuretted hydrogen, collect all the wash waters and boil to drive off the sulphuretted hydrogen, and titrate the sulphuric acid with soda or potash.

"I have tested this method with a known mixture containing 3 per cent of sulphate of copper, and obtained the following results:—

Sulphur	96·5 per cent.
Sulphate of copper	2·9 ,,

This method, as can be seen, has a degree of accuracy quite sufficient for practical commercial work.

"It does not require any special apparatus, and is limited to two titrations of sulphuric acid, which can be effected with the same solution of caustic soda or potash."

Official Memoranda.

(From the Board of Trade Journal.)

GERMAN BEET SUGAR INDUSTRY.

The following table shows the state of the beet sugar industry of Germany in the last four years :—

——	1895-96.	1896-97.	1897-98.	1898-99.
No. of factories.....	397	399	402	401
,, steam engines..	5,320	5,446	5,563	—
,, horse power ..	97,977	105,788	114,211	—
Beets worked ....tons	11,672,816	13,721,601	13,697,892	12,144,291
Production of raw sugar tons	1,537,522	1,738,885	1,755,229	1,710,000
,, molasses tons	328,463	342,322	544,480	—
Average production per factory .....,tons	3,873	4,358	4,366	4,264
Raw sugar per ton of beets .....lbs.	287	279	282	310
Beets per 1 ton of raw sugar .....tons	8	8	8	7
Sugar in the beet per cent.	13·11	12·66	12·79	13·15
Number of 12-hour work-days	59,417	68,757	63,442	—
Beets worked in 1 12-hour day .....tons	197	200	216	—
No. of sugar refineries	56	51	50	54

The U.S.A. Consul at Magdeburg states that the figures for the German export trade of sugar very clearly show that Germany must find an outside market for two-thirds of her production, and that most of this surplus for the past five years has been sold to England and the United States. In 1897 more than double the usual quantity was rushed to the United States in anticipation of the enactment of the Dingley law, but the following year (1898) showed again a fair average of export. The first three months of the present calendar year seem to furnish no reason for complaint to the German exporter of sugar. From January 1st to March 31st, 1899, the values of sugar declared at the United States consulates at Magdeburg, Hamburg, Dantzig, and Stettin for export to the United States amounted to £779,153.

SALT PRODUCTION IN INDIA.

The total quantity of salt produced in India in 1898 was 26·85 millions of maunds. This quantity was supplemented by 11,252,069 maunds of imported salt, the total quantity produced and imported amounting to 38,102,050 maunds, over 70 per cent. of the whole being produced in India. Importation is practically limited to salt brought to Bengal and Burma from England, Germany, other countries in Europe, Aden, Muscat, Jeddah, and a few other places. Only a quite insignificant quantity is imported elsewhere than in Bengal and Burma.

——	1895.	1896.	1897.	1898.
	Maunds.	Maunds.	Maunds.	Maunds.
Burma : Coast and some brine wells in Upper Burma.....	525,812	479,459	620,533	496,371
Bengal : Orissa chiefly	178,460	195,000	162,351	—
Northern India :				
Sambhar.....	5,375,046	2,715,236	2,382,888	5,813,333
Panjab mines and Kohat	2,635,817	2,881,064	1,927,375	2,946,863
Rajputana sources other than Sambhar	1,420,678	974,850	854,098	776,113
Mandi, Sultanpur, Gwalior, & the saltpetre refineries....	338,439	339,275	307,161	274,728
	9,769,980	6,910,425	5,471,522	9,811,037
Sind : Moach (near Karáchi), Saran, and Dilyar deposits	296,835	257,338	280,115	333,397
Bombay : Coast and Runn of Kutch	11,162,639	9,342,839	10,768,345	9,352,639
Madras ; East Coast ..	8,931,840	9,495,776	6,579,120	6,856,537
Total	30,865,566	26,680,837	23,881,986	26,849,981

CONSUMPTION AND REVENUE.

In 1898-99, 35,269,581 maunds of salt paid duty, the duty realised amounting (exclusive of miscellaneous receipts) to Rs. 8,579,192, the quantity being 2·15 per cent. and the duty 1·91 per cent. more than in 1897-98.

The quantity imported and produced in India, and the quantity which paid duty, are stated below ;—

Years.	Imported and Produced.	Paid Duty.
	Maunds.	Maunds.
1895-96	42,309,138	34,686,981
1896-97	35,929,981	34,062,491
1897-98	37,465,605	34,525,623
1898-99	38,102,050	35,269,581

In the subjoined table is stated the progress in consumption in the last thirty-one years. In the five years ending with 1877-78 the increase was small, hardly exceeding an annual average of 1 per cent. In the next five years ending 1882-83 the rate of increase was nearly 3 per cent. yearly. In the five years ending 1887-88 consumption again increased, the average annual rate being over 3 per cent. In 1888-89 consumption was restricted, mainly in consequence of the increase of the tax in January, 1888, from Rs. 2 to Rs. 2½ in India, and from three annas to sixteen annas in Burma. Prices were also kept at a comparatively high level in Bengal and in Madras. The average of the five years ending 1892-93 was 3·11 per cent. in excess of that of the previous five years, and the average of the five years ending 1897-98 was 2·3 per cent. in excess of that of the preceding period. In 1898-99 there was a further increase.

Years.	Average annual quantity.	Average annual duty.
	Maunds.	Rx.
1868-69 to 1872-73	22,973,432	5,751,972
1873-74 to 1877-78	24,183,707	5,979,764
1878-79 to 1882-83	27,771,372	6,589,909
1883-84 to 1887-88	32 430,487	6,147,763
1888-89 to 1892-93	33 439,787	8,027,856
1893-94 to 1897-98	34,210,825	8,258,135
1898-99	35,269,581	8,579,192

The duty realised in each of the five years 1895-96 to 1898-99 is thus apportioned between the different provinces :—

——	1895-96.	1896-97.	1897-98.	1898-99.
	Rx.	Rx.	Rx.	Rx.
Burma	146,471	130.899	143,928	146,895
Bengal.....	2,603,735	2,628,010	2,583,606	2,577,156
Northern India	1,733,508	1,745,067	1,822,273	1,908,462
Sind.....	65,512	67,573	67,010	67,517
Bombay	1,694,361	1,664,774	1,706,967	1,784.429
Madras	2,067,850	2,105,816	2,095,015	2,094,733

LOWER BURMA.

In this province salt is made at many widely-scattered points along the coast by the boiling of sea water, and in a few places of saline earth in pots and cauldrons. It has been impossible as yet to control the manufacture as it is controlled in India ; and instead of ascertaining the quantity of salt actually produced, the productive capacity of the vessels employed is estimated, and a charge made on each which is supposed to be about equivalent to the duty on imported salt from time to time.

In 1862 the tax was assessed at the following rates :—For each earthen pot holding about 6 gallons, 8 annas ; each iron cauldron, Rs. 5 (or at these rates according to capacity).

In 1867 the rates were as follows :—*In the Pegu Division*—Rangoon District—Each earthern pot holding about six gallons, 12 annas ; each iron cauldron, Rs. 5 (or at these rates according to capacity). Bassein District—Each earthern pot holding about 6 gallons, 8 annas ; each iron cauldron, Rs. 5 (or at these rates, according to capacity). Myanaung (now Henzada and Tharawaddy) District—Each earthern pot, if used, 2 annas ; each iron cauldron, if used, Rs. 1.

In the Tenasserim Division, except the Martaban (now Thatôn) District—Each earthern pot producing on the average 1 viss of salt at the boiling, 8 annas ; each iron cauldron, Rs. 2-8-0 (or at these rates, according to capacity).

In the Martaban (now Thatôn) District.—Each earthern pot, 6 annas.

In the Arakan Division—Each earthern pot, 8 annas.

Selected Correspondence.

MANCHESTER SEWAGE SCHEME AND GOVERNMENT INQUIRY.

(*To the Editor of the Manchester Guardian*)

Sir,—In view of the time that has elapsed since the inquiry, it may be well to set forth the probable results of the efforts of the Manchester Sewage Committee to persuade the Local Government Board to depart from their usual course in all matters of this kind. The Manchester scheme embodies 60 acres of bacteria beds only. No chemicals are to be used, and thus £16,000. per annum will be saved to the city; or at least so the Manchester Committee and the engineer have time after time stated. The fact is that 60 acres are not sufficient, and the ratepayers will be very foolish indeed if they allow themselves to be persuaded into the idea that no chemicals need be used when the bacteria beds are laid down, and that there will be no sludge. With your permission, I would point out to the ratepayers that the Local Government Board, with their experience, must of necessity insist upon the construction of at least 90 to 100 acres of bacteria beds if the Sewage Committee persist in this proposed experimental process. I also venture to think that if the Board so far relax their rules as to allow 90 or 100 acres of bacteria beds it will only be on condition that precipitation by chemicals be carried on at the works as hitherto.

This opinion is based upon the fact that whilst the regulations of the Local Government Board require one square yard of bacteria bed for every 56 gallons of sewage per day, the Manchester scheme is based upon 200 gallons per yard per day, and this excessive quantity must be precipitated and free from solids, or the beds would be clogged. Now, if what I predict be true—and my prediction is founded upon experience in other places,—it will be interesting to watch the proceedings of the Committee, and still more interesting to hear their opinion of the Local Government Board and its decision. First, let me remind your readers that Mr. Norbury Williams's original scheme was for 27 acres of bacteria beds, estimated to cost £61,074. This has been proved to be ridiculous. The next move increased the area to 60 acres and the estimated cost to £320,000. But to convince the Council and ratepayers that the £320,000. would be money well spent the Committee and their advisers have made a strong point that £16,000. per annum would be saved in chemicals alone. Now, if the Local Government Board allow 90 or 100 acres only, so small an area cannot purify 30,000,000 gallons of raw sewage per day without chemicals. Thus the city will have to expend £450,000. in constructing the bacteria beds, and will not be able to save a single penny in chemicals. In addition to this enormons expenditure the ratepayers will have to provide a large sum of money for the working of a process that has proved itself to be the most expensive extant, and only enthusiasts without experience would propose it for Manchester. No doubt, the Committee will first say, "We are personally satisfied that 60 acres of bacteria beds will do the work without the use of chemicals; therefore the Local Government Board are responsible for the enormously increased area and cost." They will further say to the Council, "Let us experiment first of all on an area of, say, 20 acres;" and by this means they will endeavour to get in the thin end of the wedge. Every ratepayer should watch this point, because once having obtained the consent of the Council to 20 acres of bacteria beds for experiments, the rest will be easy, and the money will be wasted. Further, they will in all probability attempt to cut down the amount of sewage to be treated at Davyhulme to a minimum, and thus try to overcome the objection of the Local Government Board to their pet scheme. But the Local Government Board have experience enough to know that if the crude sewage be not treated at Davyhulme it will be run into the Irwell and its tributaries from the 250 overflow pipes which relieve the drains of the city. Thus the canal, instead of being purified, will be constantly polluted.

What the ratepayers require is a firm Council to take this matter out of the hands of the Committee.

Yours, &c.,

Experience.

Spanish Manganese Shipments.—Messrs. Sundheim and Doetsh, Huelva, report that the total tonnage exported for the first six months of the year was 70,123 tons. Germany took 1,335 tons; England, 2,296; France, 2,087; Belgium and Luxemburg, 64,405. This firm continues to handle about one-third of the totat exports.

A New Scientific Monthly.—A new international review of science and industry makes its appearance from 33, Boulevard des Batignolles, Paris, under the title of *Le Mois Scientifique et Industriel*. It deals with machinery and physical apparatus, railways, lighting, navigation, industrial chemistry, metallurgy, electro-chemistry, agricultural chemistry, photography, and chemical and physical research work. In each of these branches specially-qualified men have been secured to co-operate with the editor.

YORKSHIRE COLLEGE, LEEDS.

ANNUAL REPORTS.

DYEING CLASSES.

Professor J. J. Hummel reports that in the dyeing department the past session has been an exceptionally busy one, and both junior and senior students have showed marked interest in the various series of experiments in progress.

In addition to our usual work, special experiments have been made in the dyeing of straw-plait, the main results of which were embodied in a paper read by Mr. R. B. Brown before the Society of Dyers and Colourists. The subject of straw-dyeing is one on which very little has been written, so that it is hoped the results now recorded will be of permanent interest to those engaged in this special industry.

The important work of testing dyed colours with respect to their behaviour towards various agents and manufacturing operations has now been made part of our regular experimental course, and it has been a prominent feature in the activities of the session. All the acid reds in wool have now been examined, and as soon as the patterns have been entered in the College books the results will be tabulated and published. Apart from the immediate utility of their results for the dyeing trade, the work itself is of considerable educational value to the students engaged in it, and, indeed, in no other way could they so well learn the characteristic properties of each dyed colour; not only is the knowledge thus gained daily becoming of more and more importance, owing to the ever-increasing variety of colouring matters introduced, but the students are trained in the methods of carrying on this kind of examination, and it is hoped that the habit thus acquired will be followed by them after they leave the College.

In view of this department being called upon at an early date to dye the whole of the yarn required in the weaving department, the students have been engaged in dyeing a large variety of colours on woollen yarn, and thus the work has begun of preparing shade cards for next session's requirements. Samples of the dyed yarn have been distributed to the students, all of whom have taken a special interest in the work.

The progress of the Department's extensions has unfortunately been greatly retarded by the dispute which has occurred in the building trade, but it is anticipated that the new Clothworkers' Research Laboratory and the practical dye houses will be ready for work next session.

These extensions represent the most important development of the department since the entry into our present buildings in 1885, and they now render it possible to work out a complete scheme of theoretical and practical instruction in dyeing, which will meet our every requirement. Hitherto the work has been wholly of an experimental character, and very properly so, for systematised experimenting is the best method whereby a thoroughly reliable and satisfactory knowledge of the fundamental principles of dyeing can be acquired. Now, however, with the additional facilities to be provided in the matter of buildings and equipment, it will become possible to show the students how they can best apply in practice on a limited scale the knowledge they have gained in the experimental part of the work. Moreover, the solution of difficulties which will naturally arise under the new conditions of work in the practical dyehouses, together with the greater confidence gained, by dealing with larger quantities of material, will all be of inestimable value in the training of the student. Already in the College dyehouses he will be able to gain some insight as to the meaning and value of practical experience, the influence of which will undoubtedly give an added interest to the work of the whole department.

The experiments in the action of light on dyed colours, carried out during the past session, have been in connection with violet and brown colours in wool and silk. The results of the work will be published at the next meeting of the British Association in September.

The research work of the department, carried on by Mr. Perkin and certain of the advanced students, has been mainly devoted to the continued systematic examination of natural yellow dyestuffs, some of which have yielded colouring principles new to science.

The work of the past session is embodied in the following papers, which have been communicated to the Chemical Society:—

1. Derivatives of hesperitin. 2. The yellow colouring principles contained in various tannin matters. 3. A reaction of some phenolic colouring matters. 4. Scoparin. 5. The colouring matter of cotton flowers (*Gossypium herbaceum*). 6. The colouring matter of dyers' broom (*Genista tinctoria*), and of heather (*Calluna vulgaris*).

When the new Clothworkers' Research Laboratory is ready, more ample accommodation and greater facilities will be at command for carrying on this part of our work, and it is hoped that advanced students, not only of this department but also from other departments of the College and from other colleges, will be attracted, and assist in persuing the series of investigations which have already yielded results of considerable scientific interest.

In connection with the course of study for the certificate of proficiency in dyeing, certain modifications, which have been under the consideration of the Senate, will come into operation next Session. The changes referred to have been introduced, partly with the object of rendering the course more attractive to students, and partly in order to find the necessary time for carrying on the additional work to be conducted in the new practical dyehouses, without extending the period of study beyond three years, as at present. Hitherto, the course has included the supplementary subjects of physics, elementary engineering, and mechanical drawing, in addition to the main subjects of chemistry, dyeing, and German. In future, attendance on these latter subjects only will be required of certificate students, in the belief that the instruction in the former, which as a rule they have already received in secondary schools, will sufficiently prepare them for entering the dyeing department.

Among the appointments gained by students since the issue of the previous list are the following:—Mr. G. Y. Allen, with the British-American Dyeing Co., Montreal; Mr. F. W. Butterworth, with Messrs. Starkey Bros., Huddersfield; Mr. C. Fowler, with Messrs. Milton, Sharp & Co., dyers, Heckmondwike; Mr. H. W. Martin, with Messrs. Wm. North & Co, dyers, Bradford; Mr. F. G. Newbury, with Messrs. Johnson Bros., dyers, Liverpool; Mr. C. H. Wilson, with Messrs. Ripley, dyers, Bradford; Mr. A. Wilson, with the Bradford Patent Dyeing Co., Bradford; Mr. P. J. Wood, with Messrs. W. Grandage & Co., dyers, Bradford.

This list does not include those students who have entered their father's business.

Occasionally information is received as to the career of some of the past students, and concerning one of them it has been reported that, in open competition with other dyers in the United States, he alone was successful in securing an important Government order, the result of which was that the whole of the Khakee uniforms worn by the American soldiers during the recent Cuban campaign were dyed according to a process devised by, and worked out under the direction of, a former student of this department.

Certain of our former students have succeeded in gaining the following more lucrative appointments:—Mr. J. Pomphrey, with Messrs. W. Grandage & Co., dyers, Brighouse; Mr. E. C. McCall, with Messrs. F. W. Hayes & Co, flax spinners and dyers, Bainbridge; Mr. J. E. Halstead, B.Sc., with the Leicester Technical School.

During the session excursions were arranged to visit the works of Mr. P. Gilston and Messrs. W. Walker & Co. In these, students have the opportunity of inspecting the practical operations connected with glass-making, wool screening, indigo dyeing, dyewood cutting, &c. The committee accord their best thanks to the firms mentioned for their kindness in thus giving both pleasure and instruction to our students.

The work of the evening classes was inaugurated, as usual, by a free public lecture, the subject being "The Silk Fibre and its Artificial Substitutes." Great interest was taken in the accompanying exhibition of samples of new silk substitute made from glue, as well as in those derived from cotton and from wood fibre. The meeting was well attended and was presided over by Mr. J. Lowden, a member of the Dyeing Committee

The number of students attending the department during the Session was:—Day classes, 33; evening classes, 25.

The following distinctions have been gained by students in this department in the City and Guilds of London Technological examination.—Wool Dyeing.—*Honours Grade.*—1st class, David Waterhouse Raine, 1st place, the Dyers' Company's prize of £3. and the Institute's silver medal. Passed, five others. Passed, 2nd class, two. *Ordinary Grade.*—Passed 1st class, seven. Passed, 2nd class, six.

LEATHER INDUSTRIES DEPARTMENT.

Nothing worthy of special notice has occurred in this department during the year beyond the gradual development of a more systematic course of instruction, which it is hoped will be considerably improved by the extended space and added appliances of the new building, which is now approaching completion, and of which the arrangement and details have demanded much of Professor Proctor's time. This, and an unexpected change of assistants at Easter, has unfortunately delayed and deferred the publication of several researches which have been undertaken in the laboratory, and especially of one on the action of acids and salts upon gelatine, the first part of which is nearly complete, and which has thrown important light on some difficult questions in the tanning process. Professor Proctor has, however, given a course of four Cantor Lectures to the Society of Arts, and contributed a series of articles to the *Leather Trades' Review* on "Modern Methods of Light Leather Manufacture," and Dr. T. Guthrie has investigated, in the laboratory, a new method of tannin estimation with silk fibre, proposed by M. Vignon, and his results have been published in the Journal of the Society of Chemical Industry. The general analytical and consulting work of the department has also continued to increase.

A change in the assistant staff of the department has been already alluded to. Mr. M. C. Lamb, who has been associated with the department almost from its commencement, first as laboratory assistant and latterly as demonstrator, has accepted the post of lecturer on leather dyeing at Herold's Institute; and Dr. T. Guthrie has also obtained other employment in private works. Their places have been filled by the appointment of Dr. Andrew Turnbull as demonstrator and assistant lecturer, of Austyn Blockey as laboratory assistant, and of Harold Brumwell as junior assistant. Dr. Turnbull is now taking a vacation course in bacteriology with a view to teaching the subject in connection with leather manufacture.

The courses of the department have been so revised as to permit of three years' students, or those who have previously taken a suitable course of chemistry in the college in addition to the two years' course in leather industries, receiving a certificate of proficiency in chemistry and leather industries, while the two years' course qualifies for a certificate of proficiency in leather industries only.

The number of students in the department has slightly increased as compared with last session. The entries for the various classes may be summarised as follows:—

	Day Classes.	Evening Classes.
Laboratory work	12 ...	16
Lecture courses	13 ...	9
	50	

Two students of the department entered during the year for the examination of the City and Guilds of London Institute in "Leather Tanning," and both passed in the second class in the Honours Grade. The assistant in the department, F. A. Blockey, also entered for the examination, and obtained the third place in the Honours Grade, and was awarded a special prize of £2. 10s. by the Leathersellers' Company and the Institute's bronze medal. No student entered for the examination in "Dressing of Skins." The following gifts to the department are acknowledged with thanks. Brass sampling tool for gambier from Mr. Frank Kathreiner; cast-iron plate and hammer, for crushing tanning materials, from Mr. A. Seymour Jones; 49 samples of aniline colours from Messrs. Brooke, Simpson and Spiller; specimen of Quebracho wood from Messrs. Corneille, David and Co; specimens of leather illustrating defects from Messrs. J. M. Jones and Sons; series of photographs, illustrating processes of leather manufacture, from Messrs. E. & J. Richardson.

IRON AND STEEL TRADES OF THE U.S.A.

THE statistics of American imports of iron and steel and manufactures thereof from Great Britain, and the exports of corresponding articles to this country from the United States disclose an interesting feature of the foreign iron trade of the latter country. They show that her imports of the above articles from this country in the fiscal year ended June 30, 1898, including tin plates, amounting in value to $8,369,866, and that her exports to Great Britain in the same fiscal year amounted to $12,752,016. The weight of all the articles, both imported and exported, is not a matter of record, but considering only those articles imported from Great Britain in 1898 which were weighed, including tin plates, and the articles weighed and exported in the same year from America to Great Britain, it is seen that America imported 119,189 long tons (2,240 lb.), and exported 118,232 tons. Mr. Swank observes that only a few years ago America was Great Britain's principal customer for iron and steel, but now America sells to Great Britain in her own home markets virtually as many tons of iron and steel as Great Britain sells to America.

Regarding the American production of iron and steel in 1898 from a quantitative point of view, it appears that in that year there were made in the United States 11,773,934 long tons of pig iron, 6,609,017 tons of Bessemer steel ignots, 2,230,292 tons of open-hearth steel, and 8,932,857 tons of steel of all kinds. There were rolled in all 8,513,370 tons of finished iron and steel, including rails. There were also shipped in the same year 14,029,682 long tons of Lake Superior iron ore and 8,460,112 short tons of Connellsville coke. The shipments of Lake Superior iron ore increased 1,565,889 tons, as compared with the shipments of 1897, or over 12 per cent., and the shipments of Connellsville coke increased 1,545,060 tons, or over 22 per cent. The production of pig iron increased 2,121,254 tons, or nearly 22 per cent., whilst that of spiegeleisen and ferro-manganese increased 40,074 tons, or over 23 per cent. Bessemer steel ingots increased 1,133,702 tons, or over 20 per cent., and open-hearth steel ingots and castings 621.621 tons, or over 38 per cent.; all kinds of steel, 1,775,900 tons, or over 24 per cent.; structural shapes, 118,407 tons, or over 20 per cent.; plates and sheets, 241,015 tons, or nearly 20 per cent.; Bessemer steel rails, 332,182 tons, or over 20 per cent.; wire rods, 100,947 tons, or over 10 per cent.; and all rolled iron and steel, including rails, 1,511,642 tons, or over 21 per cent. There was a decrease in the production of iron and steel cut nails in 1898 as compared with 1897 of 534,578 kegs, or over 25 per cent.; and in iron and steel wire nails of 1,578,770 kegs, or over 17 per cent.

According to the Bureau of Statistics of the Treasury Departments the quantities and values of iron ore imported into the United State,

during 1896-97 and 1898 were as follows:—1896, 682,806 long tons, of a value of $1,036,917.; 1897, 489,970 long tons, valued at $678,912.; and 1898, 187,208 long tons, valued at $255,548. These figures include the imports of Cuban iron ore, which in 1896, 1897, and 1898 were respectively 409,883 tons, 397,173 tons, and 164,077 tons. The falling-off in 1898 was owing to the war with Spain, the mines being in operation for a portion only of that year. The total consumption of iron ore in 1898 is estimated at 21,193,000 long tons, against 17,375 tons in 1897, 15,525,000 tons in 1896, 17,253,000 tons in 1895, 12,235,000 tons in 1894, 13,480,000 tons in 1893, 17,400,000 tons in 1892, and 15.740,000 tons in 1891. The imports of iron ore in 1898 amounted to 187,208 long tons, which quantity, subtracted from the total consumption, leaves 21,005.792 tons as the probable consumption of domestic iron ore in 1898, against 16,885,030 tons in 1897, 14,842,194 tons in 1896, 16,728,847 tons in 1895, 12,067,693 tons in 1894, 12,953,049 tons in 1893, and 16,593,415 tons in 1892.

Limestone forms an important item in the manufacture of pig iron, and the quantity used for fluxing purposes by the blast furnaces in the United States in 1897 in the production of 9,652,680 gross tons of pig was 4,247,688 gross tons. Of this quantity 3,680,666 tons were consumed by the bituminous coal and coke furnaces in the production of 8,464,692 tons of pig iron, 524,271 tons by the anthracite and mixed anthracite and coke furnaces in the production of 932,777 tons, and 42,751 tons by the charcoal furnaces in the production of 255,211 tons. The average consumption of limestone for the whole country per ton of pig iron produced in 1897 was a little over 44-100ths of a ton. In 1898 the total quantity of limestone similarly consumed in the production of 11,773,934 tons of pig iron was 5,275,819 tons, of which 725,729 tons were consumed in producing 1,203,273 tons of pig iron made with anthracite and mixed anthracite coal and coke; 4,502,209 tons were consumed in producing 10,273,911 tons of pig iron made with bituminous coal and coke, whilst 47,881 tons were used in producing 296,750 tons of pig iron made with charcoal. The average consumption of limestone for the whole country per ton of pig iron made in 1898 was nearly the same as in 1897, the figures being 448-1,000ths of a ton, or about eight-thousandths of a ton more than in 1897. The average consumption of limestone per ton of pig iron in the United States in 1897 and 1898 was a little less than half a ton.

It is to be noticed that in the manufacture of pig iron in the United States with unmixed anthracite coal is a rapidly decaying industry. Only 21,149 tons of pig iron were made with anthracite alone in 1897, and in 1898 only 22,274 tons. In neither of those years did New York State make any pig iron with anthracite coal, either mixed or unmixed, whereas in former years anthracite was the principal fuel used in that State in the manufacture of pig iron. The drop in the use of anthracite alone was very sudden, 111,667 tons of pig iron having been produced in 1896 There was a previous drop to 56,602 tons in 1895, but the figures for 1894 were 120,075.

The production of Bessemer steel ignots in America in 1898 was 6,609,017 tons, against 5,475,315 tons in the previous year, 3,919,906 tons in 1896, 4,909,128 in 1895, 3,571,313 tons in 1894, and 3,215,686 tons in 1893. The production of 1898 was therefore more than double that of 1893. Of open-hearth steel the United States produced in 1898, 2,230,292 long tons, against 1,608,671 tons in 1897. Of the total production of this steel in 1898, 1,569,412 tons were made by the basic process and 660,880 tons by the acid process. In 1897 the figures were 1,056,043 tons for the basic process and 552,628 tons for the acid process The total production of open-hearth steel castings in 1898 was 120,587 gross tons, of which 28,460 tons wers made by the basic and 92,127 tons by the acid process. In the same year 1,220 tons of open-hearth steel rails were produced, against 500 tons in 1897 and 705 tons in 1896. Of crucible steel there were produced in the United States 89,747 long tons in 1898, as against 69,959 tons in 1897 and 60,689 tons in 1896. The production of steel by various minor processes in the year under notice amounted to 3,801 long tons, of which 3.576 tons were direct castings, against 3,012 tons in 1897 and 2,394 tons in 1896.

The following figures show the total production of all kinds of steel in the United States in 1898 and immediately preceding years down to and inclusive of 1892. In 1898—Bessemer steel, 6,609,017 long tons; open-hearth steel, 2,230,292 tons; crucible steel, 89,747 tons; all other steel, 3,801 tons, giving a total of 8,932,857 tons, against 7,156,957 tons in 1897, 5,281,689 tons in 1896, 6,114,834 tons in 1895, 4,412,032 tons in 1894, 4,019,995 tons in 1893, and 4,927,581 tons in 1892.

"The Stationery World."—The annual special number of this beautifully got up monthly is to hand. It is dated June, but the contents are well abreast of recent events. The special features are:—Appreciations of Captain Partington, his Works and Staff; Messrs. Raphael Tuck and Sons; Messrs. Dixon and Co., Limited, of Liverpool; The Lithographic Stone Quarries of G. Lacan, Limited; and an article on Electric, Inkless Printing. All of these are excellently illustrated.

THE NATIONAL PHYSICAL LABORATORY.

THE realisation of the scheme for the establishment of a National Physical Laboratory is primarily due to two addresses delivered before the British Association in 1891 and 1895 by Professor Oliver Lodge and the late Sir Douglas Galton respectively. The fact that Sir Douglas Galton, when president of the association, did all in his power to support the proposal originally made by Professor Lodge led to the matter being laid before the Prime Minister by a strong deputation.

A committee, of which Lord Rayleigh was chairman, was then appointed by the Treasury, and, after taking evidence, reported in favour of the establishment of a public institution for standardising and verifying instruments, for testing materials, and for the determination of physical constants. They further recommended that the institution should be established by extending the Kew Observatory in the Old Deer Park, Richmond, and that the Royal Society should be invited to control it and to nominate a governing body, on which commercial interests should be represented, the choice of the members of such body not being confined to Fellows of the society.

These recommendations were approved, and to give effect to them the Government undertook to ask Parliament for £12,000. for buildings, and for £4,000 a year. A scheme for the management of the new institution has been approved by the Treasury, and the first instalment of the promised grants has been sanctioned by the Legislature. The Kew Observatory Committee are willing that the institution which they have managed very successfully should be merged in the National Physical Laboratory, which will thus become possessed of an endowment of £458. per annum from the Gassiot trust and of an income of about £2,700. from fees for standardising. These receipts have, in the past, rather more than covered the expenses of carrying on the work of the observatory.

The ultimate control of the National Physical Labatory is placed in the hands of the Royal Society, but the constitution of the bodies which manage it directly can only be altered with the consent of the Treasury. These are an executive committee and a general board. The latter is a relatively large body, to which the executive committee must report annually, and to which it must submit its scheme of work for the next year. An essential feature in the constitution of the general board is that 12 of its members are nominated by six of the great technical societies—viz., the Institutions of Civil, Mechanical, Electrical, and Naval Engineers, the Iron and Steel Institute, and the Society of Chemical Industry. Six of these representatives of "commercial interests" are also to be members of the executive committee, which will ultimately consist of 12 ordinary and five official members, of whom the latter are the president of the Royal Society, the chairman of the committee, the Permanent Secretary of the Board of Trade, and the treasurer and one of the secretaries of the Royal Society. In the first instance, six members of the existing Kew Observatory Committee will also have seats on the executive committee, but their places will not be filled up when their period of office expires. Finally, it is in the power of the executive committee to appoint sub-committees to superintend particular departments or investigations. The members of these sub-committees need not necessarily be members either of the general board or of the executive committee.

Preliminary arrangements have been in progress for some time in order that the National Physical Laboratory should be organised as soon as possible after the requisite funds were voted by Parliament.

The six technical societies have nominated their representatives, the general board and executive committee have been constituted, and general satisfaction will be felt at the announcement that Lord Rayleigh has accepted the chairmanship of these bodies.

On the recommendation of the executive committee, the council of the Royal Society has appointed Mr. R. T. Glazebrook, F.R.S., now principal of University College, Liverpool, to the important post of director of the National Physical Labortory. A number of sub-committees have also been organised by the executive committee, which have been requested to make suggestions preparatory to the drawing up of a detailed scheme of work and of the plans of the new buildings.

The members of the executive committee are Lord Lister, P.R.S., Lord Rayleigh (chairman), Mr. A. B. Kempe, Treas. R S., Professor A. W. Rücker, Sec. R.S., and Sir Courtenay Boyle (*ex-officio*), Captain W. de W. Abney, Sir N. Barnaby, Mr. G. Bielby, Sir E. H. Carbutt, Captain E. W. Creak, R.N., Professor R. B. Clifton, Professor G. C. Foster, Mr. F. Galton, Professor O. J. Lodge, Sir A. Noble, Professor J. Perry, Sir W. Roberts-Austen, Professor A. Schuster, Mr. A. Siemans, General Sir R. Strachey, Professor J. J. Thomson, Dr. T. E. Thorpe, and Sir J. Wolfe Barry.

In addition to the above, the following are also members of the general board:—Sir M, Foster, Sec. R S. (*ex-officio*), Sir F. A. Abel, Professor W. G. Adams, Professor W. E. Ayrton, Mr. H. Bell, Mr. A. Buchan, Mr. R. E. Crompton, Professor G. F. Fitzgerald, Professor J. Joly, Lord Kelvin, Mr. J. T. Milton, Sir W. H. Preece, Mr. W. F.

Reid, the Earl of Rosse, Dr. R. H. Scott, Mr. W. N. Shaw, Mr. C. E. Stromeyer, Admiral Sir W. Wharton, and Sir W. H. White.

The following have also been requested to serve on one or other of the sub-committees referred to :—Messrs. E D. Archibald, C. V. Boys, Professor H. L. Callendar, Messrs. Forbes Carpenter, W. H. M. Christie, J. H. Dallmeyer, Professor J. A. Ewing, Mr. S. Z. de Ferranti, Professor J. A. Fleming, Messrs. R. E. Froude, E. H. Griffiths, J. Mansergh, T. Matthews, W. H. Maw, Dr. L. Mond, Hon. C. A. Parsons, Professor A. W. Reinold, Captain H. R. Sankey, Messrs. J. Swinburne, G. J. Symons, H. A. Taylor, Professor S. P. Thompson, Messrs. J. I. Thornycroft, C. H. Wordingham, and A. F. Yarrow.

It will thus be seen that the National Physical Laboratory is being founded on a wide basis. A definite scheme of work will be arranged during the autumn. The director will, it is hoped, take up the duties of his office on January 1st, 1900, and the planning and erection of the new buildings will then proceed with as little delay as possible.

Trade Notes.

Arsenic Works Stopped.—The Devonshire arsenic works at Marytavy have been closed. It is stated that the mine is by no means exhausted ; in fact, a splendid lode was being worked when all hands (about 100) were stopped. The manager, it is said, has also received notice to relinquish his position. It is hoped that the directors will soon see their way to re-employ the workmen. Some of them are too old to go far in search of work or take up another vocation, and many of them have wives and families. The dispute—which, it is rumoured, exists between the shareholders and directors—is one which should not be difficult to settle.

Gelatine Works Nuisance.—The factory of Messrs. Brown, Wills & Nicholson, Exeter-street, Plymouth, where animal matter is chemically treated in production of gelatine, &c , became the subject of serious complaint at a meeting of the Plymouth Borough Council, on Monday evening, when 30 tradesmen attended as a deputation and spoke of the factory as a nuisance by reason of the stench arising from the manufacture. It was stated that workmen had been made unwell by the noxious gases. The proprietors of the factory sent a letter to the Town Clerk denying the truth of the allegations, and attributing some of them to imagination. They stated that they have been in active negotiation to remove the whole concern ; but until they were able to complete the arrangement they must continue working where they were. They were most anxious to avoid unpleasantness with their neighbours. The Mayor promised the deputation that the matter should receive the careful attention of the Council. From what he knew of the proprietors they were not the people to need much pressure on a point of that sort.

Obituary.—The death is announced of *Sir Edward Frankland*, who died in Norway on Wednesday, last week. He was born at Churchtown, near Lancaster, on January 18, 1825. After a training in the Grammar School of his native town he went to the Royal School of Mines, and completed his education at Marburg and Giessen, taking the degree of Ph.D. From 1851 to 1857 he was one of the professors at the Owens College, and afterwards held appointments at St. Bartholomew's Hospital, the Royal Institution, and the Royal School of Mines. For thirty years he reported annually to the Local Government Board on the condition of the London water supply. He was a member of the Royal Commission on the Pollution of Rivers, 1868-74, Hon. Foreign Secretary of the Royal Society, and a President of the Chemical Society. He was also a foreign member of the Paris Académie des Sciences. He was created a K.C.B. in 1897.—*Professor Bunsen*, the illustrious Heidelberg chemist, died on Tuesday, aged 88. He has been living in retirement for some years. By his death the last living link between the old and new school of German scientists has been severed.

American Patents.—The report of Mr. C. H. Duell, United States Commissioner of Patents, for the year ending June 30, 1899, says that there were received in the fiscal year 35, 352 applications for patents, 2,292 applications for designs, 91 applications for reissues, 1,610 caveats, 1,861 applications for trade marks, 612 applications for labels and 112 applications for prints There were 23,550 patents granted, including reissues and designs ; 1,406 trade-marks, 372 labels and 76 prints were registered. The number of patents that expired was 16,670. The number of allowed applications which were by operation of law forfeited for non-payment of the final fees was 4,021. The total receipts of the office were 1,209,554 dols., the total expenditures were 1,148,663 dols., and the surplus of receipts over expenditures, being the amount turned into the Treasury, was 60,891 dols. On June 27, 1898, every examiner had his new work within one month from the date of filing, and his amended work within 15 days of date. This is the first time since December, 1889, when the present form of weekly reports was adopted, that such a report has or could have been made.

Research Scholarships.—Mr. Frank Austin Tidbury, B. Sc., of Owens College, has been awarded a science research scholarship of the value of £150. a year, tenable for two years, by the Commissioners for the Exhibition of 1851. A science research scholarship for a second year has been awarded to James Frank Bottomley, Ph.D., of Owens College, to proceed to University College, London ; and one under special circumstances to James Henry Smith, B. Sc., of Owens College. A research scholarship granted in 1897 to Charles H. G. Sprankling, B. Sc., Owens College, has been exceptionally renewed for a third year. These scholars are required to devote themselves exclusively to study and research in some branch of science, the extension of which is important to the industries of the country.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols have been moving more freely, but at rather easier prices for 90's, namely 8d., while 50/90's are quoted 10d. Carbolic acids are a shade easier at 2s. 1d. for crude and 7½d. for crystals. Naphthas strong, and prices well maintained. Pitch keeps firm, but prices are erratic, from 33s. to 35s. being quoted, f.o.b. East Coast. Creosote is steady and dear. There is no change in anthracene.

Sulphate of ammonia is steady and prices have kept stationary at the advance, and as the demand seems growing the position for forward is likely to improve. Beckton asks for £12. for Oct /March. Prompt prices are :—London outside makes £12. 7s. 6d. to £12. 10s., Hull £12. 5s., and Leith £12. 7s. 6d. to £12. 10s. Nitrate of soda is steady at 7s. 9d. to 8s. cwt., according to quality.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade the tendency is all round in the direction of higher values. The market has a distinctly healthier tone, and the advanced prices on caustic soda are being paid. Bleaching powder continues in good brisk demand, especially for export, at from £5. to £5. 5s. per ton, hardwoods, f.o.b. For home trade, quotation is nominally £4. 15s. per ton, f.o.r. makers' works. Alkali, 58%, is firm at £3 17s. 6d., bags, for contracts, and spot parcels 5s. per ton more. Chlorates are unchanged. For caustic soda current quotations stand f.o.b. Liverpool as follows :—77%, £9. 5s.; 74%, £8. 15s.; 70%, £8.; 60%, £7. per ton. Sulphur firm at £4. 12s. 6d. per ton. Nitrate of soda steady at 7s. 7½d. per cwt. Saltcake dearer at 24s. to 25s. per ton on rails, both for prompt and forward. Sulphate of copper a little irregular at £24. to £24 5s f.o.b. for prompt and early shipment. Vitriol and muriatic acid in good general request. White powdered arsenic rather quieter at £18. 10s. to £18. 15s., Garston. Potash, caustic and carbonate, continue to have an upward tendency. Caustic, 90%, £23. 10s. to £24. per ton ; carbonate, 90/92% at £16. 10s. per ton. For aniline oil and salt quotations are unaltered, but the market is firmer. Carbolic acids are in moderate demand, and prices are well maintained for all qualities. Ammonia salts all round are in good inquiry. Sulphate of iron is moving more freely. Brown acetate of lime steady at £4. 17s. 6d., ex-ship ; grey, £7. 17s. 6d. per ton. Acetate of soda is selling well at £12. 15s. to £13. per ton, ex-ship. Prussiate of potash slightly easier at 7⅝d. to 7¾d. per lb. Soda, 6d. per lb. Cyanide, 98/100%, has a rather lower tendency. Sulphocyanides are neglected. Zinc and tin salts are firm at the advanced prices. Acetate of lead continues to droop under the competition of sellers. Nitrate of lead firm at £21. 15s. per ton. Borax is maintained at £16. For chemicals generally in the textile trades there is only moderate demand, business being somewhat quiet.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is very steady and sellers are unwilling to accept recent values, though buyers are anxious to operate thereat. Sales have been made at £22. 15s. soft oils ; Lagos, £23. 10s. to £23. 12s. ; and Old Calabar, £23. Olive scarce and dear at £32. to £32 10s. per tun. Linseed on the advance at 22s. 3d. to 22s. 6d. cwt. for Liverpool makes in export casks. Cottonseed steady with Liverpool refined at 18s. to 18s. 6d. cwt. Castor oil steady and inclined to be firmer at 2$\frac{13}{16}$d., and first pressure French 2$\frac{15}{16}$d. to 2¾d. per lb. Tallow strong and prices generally are firmer. Resin is firm ; common and medium grades show no change but fine quality has an upward tendency. Spirits of turpentine are rather quiet on spot at 37s. 9d. cwt. Petroleum steady with American 6½d. to 7⅞d., and Russian refined 5⅞d. to 6¼d. per gallon.

CAKES :—American Western linseed on the spot have been in improved request, and the tone is a shade firmer ; transactions reach to a fair extent at a slight improvement on former figures, the value being now £6. 10s. to £6. 13s. 9d. Bombay are also well held, but the business passing at £6. 17s. 6d. to £7. per ton is only on a small

scale, whilst River Plate and Russian are both more or less nominal in value. Liverpool makes are steadily held, with a moderate demand experienced at previous currencies, viz., £7. 2s. 6d. to £8. per ton according to brand. For good to choice brands of American decorticated cottonseed the tone ruled firm, and rather more inclination for trading on the part of consumers was exhibited at £5. 10s. to £6. according to quality, and Liverpool makes continued to have a moderately fair sale at £6. 2s. 6d. to £6. 15s. per ton, according to brand. Undecorticated Liverpool makes are steadily held for £4. 17s. 6d. to £5. 7s. 6d., according to brand, and moderate sales are reported thereat, and with a rather better demand for Egyptian on the spot the tone is firm at £4. 10s. to £4. 12s. 6d. per ton.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 91s., seconds 50s, and common 18s.; Devonshire, 40s. to 45s.; French, J C, 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s 9d.; black, 9s.; blue, 6s. Oxide of iron: Common, £7.; medium, £10.; finest, £20.; Zinc oxide: £22. 10s. to £25.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron, steady: Scotch Warrants closed at 66s. 4d., Middlesbrough, 63s. 3d., cash, and hematite, 70s. 3d. Copper dull: Chili bars, G.O.B.'s and G.M.B.'s, closed at £75. 12s. 6d. to £75. 17s. 6d., cash; and £76. to £76. 5s. three months. Tin, steady: Straits closed at £141. 7s 6d. to £141. 17s. 6d. cash, and £142. 5s. 0d. to £142. 15s. 0d. three months; Australian, £142.; English ingots, £145. Lead, strong: Spanish, £14. 18s. 9d.; English, £15. 2s. 6d. Silesian spelter, ordinary, £24. 2s. 6d. to £24. 5s. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 7s. 6d.; second hands, £8. 7s. *Copper Shares* steady: Cape, 4 1/16 to 4 3/16; Copiapo, 3 11/16 to 3 13/16; Libiola, 1¾ to 2; Mason & Barry, 3 5/16 to 3 7/16; Rio Tinto, 44 15/16 to 44 17/16; Tharsis, 7⅞ to 8¼.

GLASGOW, Wednesday.—Market flat, and a fair business. Scotch done at 66s. 6d., 66s 6½d., 66s. 3d., and 66s. 4d. cash; also at 66s. 10d., 66s. 6d., 66s. 8½d., and 66s. 7¾d month; buyers, 66s. 3¾d. cash; sellers, 66s 4d. Cleveland done at 63s. 8d month; buyers, 63s. 3d. cash; sellers, ½d. higher. Cumberland hematite done at 70s. 3d. cash, and 70s 10½d. to 70s. 8d. month; buyers, 70s. 3d. cash; sellers, 70s. 4d.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The market prices of oils rule firm with a tendency to advance. The imports to date, compared with same period a year ago, have been:—Linseed, 303,056 qrs., against 225,604 qrs.; rapeseed, 72,412 qrs., against 50,585 qrs; cottonseed, 93,950 tons, against 121,147 tons; oilcake, 12,715 tons, against 8,733 tons; olive oil, 2,606 tuns, against 4,148 tuns; tar, 6,132 barrels, against 1,014 barrels. Linseed oil is firm, and quoted 20s. 1½d. naked, spot; 18s 9d., Oct.-Dec.; 18s. 6d., Jan-April; ordinary casks £1. and £1. 10s. per ton extra. The exports for the week have been 1 ton Belgium, 9 tons Germany, 2 tons Holland, 12 tons Norway—total, 24 tons. Refined cotton oil 16s 3d. per cwt. naked, spot, 16s. 4½d. month, 16s. 3d. Sept.-Oct. (and more inquiry), Nov.-April at 14s. 3d.; crude on the spot is quoted 15s. 1½d. The exports for the week have been 10 tons Denmark, 17 tons France, 9 tons Germany, and 24 tons Holland—total, 60 tons. Castor oil, extracted here, from 28s. per cwt. in barrels for cold drawn to 24s. 6d. per cwt. for second pressure. Cod oil, £16. to £18. per ton in barrels. Olive oil unchanged. Olive oil soap from £15. 10s., to arrive ex-quay. Resins steady. Oleines firm and unchanged, from £18. to £21. per ton. Turpentine again dearer, from £38. per ton.

CAKES.—The situation on the market here is in much the same position as recorded a week ago, with linseed cakes in good request and a firm market, the quotations being 95% pure, £7. 5s. to £7. 7s. 6d.; oilcakes (linseed), £6. 5s. to £6. 7s. 6d.; Russians, £7. to £7. 2s. 6d.; Americans, none. Cotton cakes steady; best makes £5. 7s. 6d. to £5. 12s. 6d.; seconds, £5. to £5. 5s. Decorticated, none. Rape cakes, Black Sea, £4. 10s. to £4. 12s. 6d. per ton.

PAINTS.—Makers continue actively employed, yet the export trade is not equal to a few years ago. Prices unchanged. Disinfectants in good demand. Poisonous powder sheep dip from £3. per case.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Tuesday.

Sulphate of ammonia, prompt Cob Leith, has had a sharp recovery since the middle of last week, and is now strong at £12. 10s.; but there is nothing at all doing in forward. Last week's meeting of representatives of the mineral oil manufacturers of Scotland (held in Glasgow) resulted in the fixing of the new season's prices of burning oil at ¾d. to 1d. advance on the figures of August, 1898, so that in the new contracts now being made the makers will, for the first time, reap the full benefit of an increase in value which has really taken effect on the open market for some time past whenever new business had to be done. The other mineral oils and paraffins are all healthy, and spirit is again dearer at 10d. to 10½d. The general market in chemicals has continued to the improving side, and there have been some advances, particularly in caustic soda and soda crystals. The hot weather is again interfering to some extent with production. Sulphate of copper is easier at about £24.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £8. 5s., 70/72° £7. 17s. 6d., 60/62° £6. 17s. 6d., and cream 60/62° £6. 5s., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 15s. nett, Tyne; saltcake, 23s to 24s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3½d., less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d.; sulphate of ammonia, £12. 10s. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £24., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb.; paraffin spirit (naphtha), 10d. to 10½d. per gal.; paraffin oil (burning), No. 1, 6¾d.; and crystal, 7d. nett, at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865° £5. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

Tuesday.

The chemical market still keeps steady, though new business is by no means plentiful. Bleach is quoted at £5. 10s. and £5. 15s. per ton. Soda crystals £2. 12s. 6d per ton, gross weight, locally. Caustic, 70%, £8., and 76/77%, £9. per ton. Sulphur scarce at £4. 15s. per ton, f.o.b. Tyne.

Bleaching powder, softs, £5. 10s. per ton, nett; do., hards, £5. 15s. per ton, nett; caustic soda: 76/77% £9., and 70% £8. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. 0d. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. 0d. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The coal market is firm and with a good demand, full prices are being maintained. Coke is perhaps a shade easier, being rather more plentiful. To-days quotations are: best Northumbrian steam, 13s. and 13s. 6d. per ton; second qualities, 12s. and 12s. 6d. per ton; small steam, 6s. 6d. and 6s. 9d. per ton; bunker coals, 10s. 3d. and 10s. 6d. per ton; coke, 24s. and 25s. per ton.

New Companies.

Chili Copper Sulphate Synd., Ltd.—Capital £5,000 in £1 shares. This company has been formed to acquire, own and work cupreous, auriferous and argentiferous land in Chili or elsewhere.

Lantern China Clay Co., Ltd.—Capital £8,000 in £1. shares. This company has been formed to adopt an agreement with J. F. Pagen and A. Helder, and to acquire and work any china clay works, beds, quarries, etc, in Cornwall. The number of directors is not to be less than 2 nor more than 5; the first are A. Helder and J. F. Pagen. Qualification £100. Remuneration as fixed by the company.

Fowler, Furneis and Co., Ltd.—Capital £6,000. in £25. shares. This company has been formed to acquire and carry on the business of chemical and other manure manufacturers, cake and seed merchants, etc., carried on by J. Fowler and Co., at Thornaby-on-Tees

and elsewhere. The number of directors is not to be less than 6 nor more than 10. The first are Robert Humphrey, Wm. J. Humphrey, W. J. Scott, H. Aungle, W. Madderson, J. J. Furneis, J. Fowler and A. Burdon; qualification £100.

Anglo-Russian Maximoff Co., Ltd.—Capital £400 000. in £1. shares. This company has been formed to adopt an agreement with the Anglo-Russian Contract Co., Ltd., M. Landau and V. R. Maximoff, and to carry on the business of dealers in and refiners of petroleum and other mineral oils and products thereof. The subscribers to the memorandum of association are:—E. W. Landon, Hackbridge College, Carshalton, gentleman; R. Farkatch, 4, Union Court, Old Broad-street, E.C., consulting engineer; H. F. Greig, 8, Drapers Gardens, E.C, stockbroker; T. R. Haslam, 4, Copthall Chambers, E.C., solicitor; F. W. Pixley, 58, Coleman-street, E.C., chartered accountant; H. Wyllie, 7, St. Helens Place, E.C., merchant; W. G. Elder, 7, St. Helens Place, E.C., merchant. Reg. office, 4, Union Court, Old Broad-street, E C.

Ardilla Copper Mines, Ltd.—Capital £120,000. in £1. shares. This company has been formed to adopt an agreement with E. J. Thompson for the purchase of certain mines and mineral concessions near Barrancos, Portugal, and to search for, prospect, examine, explore, open and work mines and land containing or supposed to contain minerals, metals, or precious stones. The subscribers to the memorandum of association are:—J. R. Francis, 29, Western Parade, Southsea, gentleman; C. B. Holland, 8, Thicket-road, Anerley, S.E., engineer; R. H. Crowden, 6, Southwark-street, S.E., merchant; H. S. Fleming, Park House, Ingrave, Brentwood, major; H. E. G. Dawson, Braeside, Woking, accountant; H. P. Hare, 135, Rotherhithe New-road, S.E., accountant; G. J. Price. 11, Napier-road, Leytonstone, E., accountant. Registered office, 20-21, Lawrence-lane, Cheapside, E.C.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending Aug 5th.

Acetic Acid—
Belgium, 32 pks. Elkan & Co.
Holland, 10 H. Wallace & Co.
" 100 R. W. Greeff & Co.
" 85 Little & Johnston

Acetone—
U. States, 5 pks. T. Jones & Co.
Holland, 2 Hernu, Peron, & Co.
Germany, 10 T. H. Lee
Holland, 2 T. H. Lee

Ammonium Muriate—
Holland, 30 pks. H. Lorenz

Antimony Ore—
Japan, 34 t. City Com. Wf. Co., Ld.
Spain, 10 J. Bamber

Arsenic—
Germany, 4 pks. Craven & Co
Portugal, 46 Coverley & Westray

Barium Chloride—
Sweden, 20 pks. G. Boor & Co.
Germany, 9 cks. J. Barber & Co.

Barium Sulphate—
Belgium, 50 pks. J. L. Lyon & Co.

Baryte—
Belgium, 150 pks. Pilchers, Ld.
Holland, 20 W. Harrison & Co.
" 95 Wilkinson, Heywood & Co.
Germany, 38 J. L. Lyon & Co.
Belgium, 200 Taylor Brs.
Germany, 23 Duggan, Neel & McColin
Holland, 50 J. Owen
" 13 R. W. Greeff & Co
Belgium, 500 J. L. Lyon & Co.
" 181 W. Harrison & Co.
Holland, 10 M. Beuscher

Bones—
Sydney, 3 t. C. A. & H. Nichols

Caoutchouc—
Germany, 1 t. 4c. Wallace Brs.
Zanzibar, 1 17 L. & I. D. Jt. Co.
" 1 4 Hale & Son
Ibo, 15 Clarke & Smith
Melbourne, 12 W. Balchin, Ld.
Rangoon, 15 5 L. & I. D. Jt. Co.
Sydney, 13 L. & I. D. Jt. Co.
Ibo, 5 7 L. & I. D. Jt. Co.
France, 10 Proctor Brs
" 1 8 Major & Field
P. E. Africa, 1 Lewis & Peat
U. States, 12 G. T. Benton & Son
Natal, 10 J. T. Rennie, Son, & Co.
Straits, 32 11 L. & I. D. Jt Co.
" 2 5 Prop. Bull Wf.
E. Indies, 2 10 E. Barber & Son
Madagascar, 1 16 W. M. Smith & Son
Straits, 2 W. Pope & Co.
" 10 8 E. Boustead & Co.
" 3 Elkan & Co.
Germany, 2 17 Prop. Bull Wf.
Belgium, 1 17 Prop. Bull Wf.

Carbon—
Holland, £45 Phillipps & Graves

Castor Oil—
Italy, 20 cs. Nicholson's Whvs., Ld.
" 30 Stebbing & Co.
" 11 pks. Mc. Bomble & Co.

Caustic Potash—
France, 20 pks. W. E. Cole
" 20 F. W. Berk & Co., Ld.

Caustic Soda—
Germany, 1c. Argo S. S. Co.

Chemicals *(otherwise undescribed)*
Germany, £12 E. J. Brash
" 44 R. W. Greeff & Co.
" 46 Butler's Wf., Ld
" 80 L. & I. D. Jt. Co.
" 16 Argo S. S. Co.
" 77 H. Lambert
Holland, 20 H. & G. Dutfield
" 5 M Benscher
U. States, 8 Pickford & Co.
" 1950 S. C. Jones
Belgium, 5 T. Ronaldson & Co.
" 20 C. Atkins & Nisbet
" 9 T. Palmer
" 17 John Cockerill Line

Citrate of Lime—
Italy 49 pks. B. Jacob & Sons

Citric Acid—
Italy, 40 pks. B. & F. Wf. Co.

Coal Products—
Pitch
Germany, 66 cks. L. & I. D. Jt. Co.
" 500 Fellows, Morton & Co.
France, 63 H. Hill & Sons
N. Russia, 350 Harris Brs.
Tar
N. Russia, 230 brls. London Oil Storage Co.
Germany, 5 L. Schotzer & Co.

Colours—
Holland, 4 cks. R. Baebz & Co.
Germany, 17 O'Hara & Hoar
Italy, 6 pks. A. Laming & Co.
" 27 brls. O'Hara & Hoar

Cream of Tartar—
France, 5 pks. M. Ashby, Ld.
" 10 W. C. Bacon & Co.
" 4 Chamberlain's Wf.
" 19 B. & F. Wf. Co., Ld.
Italy, 5 "
" 35 W. C. Bacon & Co.
Holland, 4 Kirkpatrick, Barr & Co.
Spain, 20 B. & F. Wf. Co., Ld.
Portugal, 5 "

Disinfectants—
France, £40 Rosenberg, Loewe & Co.

Dyestuffs *(otherwise undescribed)*
Rangoon, 2 brls. Rosenberg, Loewe & Co.

Dyestuffs—
Alizarine
Holland, 6 pks. G. S. N. Co.
Argols
Ceylon, 15 pks. Thames S. T. & L. Co. Ld.
Italy, 23 Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 43 pks. W. M. Smith & Son
" 32 J. Owen
" 12 Strawson & Co.
Cutch
Rangoon, 250 t Phillips & Graves
Extracts
Canada, 100 pks. Furness, Withy & Co., Ld.
France, 120 Beresford & Co.
Gambier
Straits, 504 pks. Adamson, Gilfillan & Co.
" 463 Leach & Co.
" 495 Prop. Hay's Wf.
" 676 Beresford & Co.
" 167 Hicks, Nash & Co.
France, 1 W. Burton & Sons
Indigo
Belgium, 1 cht. John Cockerill Line
E. Indies, 4 chts. L. & I. D. Jt. Co.
" 10 W. J. & H. Thompson
Myrabolams
E. Indies, 560 pks. Hoare, Wilson & Co.
Orchella
E. Indies, 23 pks. L. & I. D. Jt. Co.
Saffron
Spain, 1 pk. Major & Field
Shumac
Italy, 1,250 pks. J. Kitchin, Ld.
" 50 A. E. Piggott
Tanners' Bark
Natal, 137 t. Boutcher, Mortimore & Co.
" 53 A. & W. Nesbitt
" 60 J. T. Rennie, Son & Co.
Adelaide, 11 J Greig
Cape, 24 Union L. Co., Ld.
Turmeric
E. Indies, 82 bgs. Major & Field
" 25 pks. G. & H. Green
Valonia
A. Turkey, 83 t. M. D. Co.

Farina—
U. States, 23 pks. L. & I. D Jt. Co.
Germany, 42 T. H. Lee
" 200 R. Bennett & Co.
Sydney, 7 Montgomerie & Workman

Gamboge—
Straits, 6 pks. L. & I. D. Jt. Co.

Glucose—
U. States, 30 pks. 100 c. G. W. Sheldon & Co.
" 250 250 Beck & Pollitzer
" 500 500 Pickford & Co.
" 198 198 C. Mangold & Co.
Holland, 108 150 J. Barber & Co.
France, 300 300 Perkins & Homer
Germany, 200 200 Baxter & Hoare
" 60 66 Colthurst & Harding

Glue—
France, £100 Duche & Sons
" 115 Mory & Co.
" 1916 J. Harrison
" 1350 T. M. Duche & Sons
" 200 Burnett Brs. & Sons
Italy, 160 Sander & Knott
" 75 C. A. & H. Nichols
Holland, 37 Grosscurth & Lubold
Holland, 43 G. S. N. Co.
Belgium, 44 Leach & Co.
Germany, 33 Cotsell & Co.
" 7 Argo S. S. Co.
" 35 C. A. & H. Nichols
" 16 M. D. Co
" 68 Steinhoff, Sons & Co.
U. States, 50 Lon. Parcels Del. Co.

Gutta Percha—
Straits, 19 t. Prop. Bull Wf.
" 24 14c. Gilman Brs. & Co.
" 32 10 L. & I. D. Jt. Co.
" 32 5 Huttenbach & Co.
" 26 H. W. Jewsbury & Co.
" 5 1 Kaltenbach & Smith
" 60 6 W. Pope & Co.
W. Indies, 3 Anderson, Weber & Smith
Holland, 1 8 H. Kiver & Co.

Lead Acetate—
Germany, 13 pks. R. W. Greeff & Co.
" 6 F. Boehm

Litharge—
Holland, 59 pks. Spies Brs. & Co.
Germany, 4 Typke & King
" 20 H. Lambert
" 16 H. Wallace & Co.

Lithopone—
Holland, 20 pks. J. Owen
" 40 Wilkinson, Heywood & Co.

Manganese Ore—
Germany, 11 t. Kennet Wf. Co.

Manure—
E. Indies, 100 t. J. Owen
" 50 A. Hunter & Co.

Methyl Alcohol—
U. States, 3600 g. Parker & Co.
" 866 g. H. Wallace & Co.
Germany, 4 brls. J. Norrenberg
" 110 g. H. Ryding
France. 3412 g. E. Catlin

Molasses—
U. States, 200 cks. 1000 c. J. W. Cook & Co.
" 351 1560 Deering & Robottom
" 100 650 Bellingham, Smith & Co.
" 600 3346 J. Forsey
" 575 3156 L. & I. D. Jt. Co.

Ochre—
Holland, 2 pks. Phillipps & Graves
France, 290 W. Harrison & Co.
" 33 J. L. Lyon & Co.
" 30 J. Kitchin, Ld.
" 8 O'Hara & Hoar
" 89 J. Harrison
Germany, 4 H. Keller & Co.

Paraffin Wax—
U. States, 100 brls. H. Hill & Sons

Phosphates—
Belgium, 360 t. West & Penrose

Potash—
Germany, 10 pks. F. Smith
" 8 T. H. Lee
France, 1 t. 1 c. J. Harrison

Potassium Bromide—
Germany, 10 pks. R. W. Greeff & Co.

Potassium Carbonate—
Germany, 5 t. 6 c. F. Smith
Belgium, 1 A. & M. Zimmermann
Canada, 9 Charles & Fox

Potassium Chlorate—
France, 100 pks. Taylor Brs.
Sweden, 100 G. Boor & Co.

Potassium Permanganate—
Germany, 21 pks. Butler's Wf., Ld.

Potassium Sulphate—
Germany, 500 bgs. Anglo-Contl. Guano Works

Pyrites—
Portugal, 1,000 t.

Red Lead—
Germany, 15 pks. Robertson, Selley & Co.
" 4 H. Wallace & Co.

Rosin—
U. States, 500 brls. H. Hill & Sons
" 1,250 T. Nickels & Co.
" 1,000 J. Knight & Sons
Portugal, 250 Union Ltge. Co., Ld.

Salicylic Acid—
France, 9 cs. Mory & Co.
Germany, 3 pks. Butler's W., Ld.

Saltpetre—
Germany, 163 pks. P. Hecker & Co.
E. Indies, 295 bgs. Lucas & Spencer's Wf.

Soda—
Holland, 1 t. 10 c. R. W. Greeff & Co.
" 5 10 Netherlands S. B. Co.

Soda Ash—
Belgium, 228 t. R. Waters

Soda Crystals—
Belgium, 15 t. Leach & Co.

Sodium Acetate—
France, 20 pks. J. Harrison

Sodium Hypochlorite—
Germany, 5 t. 8 c. H. Lambert

Sodium Prussiate—
Germany, 25 pks. J. Owen
France, 28 "
Belgium, 33 "

Sodium Sulphide—
Holland, 25 pks. H. Lorenz

Starch—
Holland, 40 pks. Hernu, Peron, & Co.
" 110 G. S N. Co.
" 200 T. H. Lee
" 3,737 Little & Johnston
Belgium, 710 E. & T. Pink
" 240 T. Ronaldson & Co.
" 90 Kearley & Tonge
" 140 C. Tennant, Sons & Co.
" 230 Leach & Co
" 740 T. H. Lee
" 400 Becker & Wagner
Germany, 80 Horne & Co.
" 10 Butler's Wf., Ld.
" 6 L. & I. D. Jt. Co.
" 100 Seaward Brs., Ld.
France, 196 M. Smith
" 40 J. Barber & Co.
" 22 L. Mendelsohn
U. States, 1,600 Union Ltge. Co., Ld.
" 300 R. G. Hall & Co.
" 310 C. Tennant, Sons & Co.
" 699 R. Bennett & Co.
" 400 Union L. Co., Ld.

Stearine—
Holland, 17 cks. W. Von Bourberg
" 338 bgs. H. Hill & Sons
Belgium, 63 "
" 50 J. Harrison
" 50 J. W. Baker
" 6 cks. T. H. Lee
France, 66 bgs. Burnett Brs. & Sons
" 250 H. Hill & Sons
" 325 G. Boor & Co.
U. States, 15 pks. L. & I. D. Jt. Co.

Sulphur—
Italy, 21 t. Soundy & Sons
" 25 W. C. Bacon & Co.
" 14 J. Kitchin, Ld.
" 8 Medway Upper N. Co.
" 10 P. Hecker & Co.
" 16 W. Pope & Co.
France, 5 J. Puddy & Co.
" 18 F. C. Devon & Co.
" 21 F. Smith
Germany, 28 pks. T. H. Lee

Tallow—
N. Zealand, 99 cks. J. Graves
" 50 N. Z. & A. Co.
" 27 Deering & Robottom
" 60 Low, Sons, & Bedford
" 100 Dalgety & Co., Ld.
" 11 N. Z L. & M. A. Co.
" 97 Beresford & Co.
N.S.W., 27 G. S. Yuill & Co.
" 103 J. R. Francis & Co.
" 171 Mordaunt Brs.
" 50 Union Ltge. Co., Ld.
" 210 Hoare, Wilson, & Co.
" 22 Aust. Meat Co.
" 123 Flack, Chandler, & Co.
" 100 A. B. Curtis & Co.
" 103 H. Hill & Sons
" 26 Bessler, Waechter, & Co.
" 23 Beresford & Co.
" 145 H. Lambert
" 204 Phillipps & Graves
" 12 Deering & Robottom
" 33 Lucas & Spencer s Wf.
Queensland, 53 Dalgety & Co., Ld.
" 35 Aust. Meat. Co.
" 182 Phillipps & Graves
U. States, 57 Beresford & Co.
" 6 bdls. Lunham & Moore
Holland, 10 cks. Phillipps & Graves
Belgium, 7 John Cockerill Line
Tangiers, 120 Elkan & Co.
Argentine, 300 Phillipps & Graves

Tartar—
Italy, 62 pks. B. Jacob & Sons
" 16 cks. Howards & Sons

Tartar Emetic—
Germany, 10 pks. R. W. Greeff & Co.

Tartaric Acid—
Holland, 32 pks. Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 7 pks. G. S. N. Co.
" 4 Orlando Jones & Co.
" 4 Phillipps & Graves
Belgium, 4 Tough & Henderson
" 2 J. Harrison
Germany, 14 Argo S. S. Co.

Varnish—
Holland, 14 pks. Phillipps & Graves
U. States, 40 Atlantic Transport Co.
" 52 Taylor Brs.
Germany, 19 Argo S. S. Co.

Waste Salt—
Germany, 10 t. F. W. Berk & Co., Ld.

White Lead—
Belgium, 86 pks. T. & W. Farmiloe, Ld.
Holland, 24 Fielder, Hickman & Co.
" 51 Randall Brs.
Germany, 18 Perkins & Homer
" 38 Taylor Brs
France, 16 Soundy & Sons
" 1 W. H. Carey & Sons
Austria, 12 M. Dk. Co.

Wood Pulp—
U. States, 2,240 pks. Henderson, Craig & Co.
Germany, 96 Bailey & Leetham, Ld.
" 100 Becker & Co.
" 100 S. E. Rly. Co.
Sweden, 80 Andrews & Co
" 200 C. A. & H. Nichols
" 2,253 W. G. Taylor & Co, Ld
" 200 J. W. Cook & Co., Ld.
Norway, 200 Andrews & Co.
" 2,430 Tough & Henderson
" 704 Christophersen & Co.
" 16 W. D Cork
" 704 W. E. Bott & Co.
" 640 Becker & Co.
N. Russia, 16 Thames S. T. & L. Co., Ld.
Belgium, 2,242 J. Harrison

Zinc Oxide—
Holland, 166 pks. M. Ashby, Ld.
U. States, 400 "
Germany, 500 Soundy & Sons
" 49 J. Matton
" 40 Brandram Brs. & Co.
" 25 R. W. Greeff & Co.

Zinc Sulphate—
Germany, 33 pks. Burgoyne & Co.

Zinc White—
Holland, 40 pks. Spies Brs. & Co.
Germany, 36 M. Ashby, Ld.
France, 20 Kerestedji & Co.

MANCHESTER.

Week ending August 5th.

Antimony Salt—
Rotterdam, 2 cks.

Barium Nitrate—
Antwerp, 19 brls.

Barytes—
Antwerp, 50 bgs.
Hamburg, 11 cks.
Rotterdam, 160 bgs.

Chemicals *(otherwise undescribed)*
Rotterdam, 1 ck.

Chrome Alum—
Rotterdam, 1 ck.

Citric Acid—
Hamburg, 2 cks.

Coal Products—
Alizarine
Rotterdam, 119 cks.

Colours—
Hamburg, cks
Rotterdam, 91 47 cs. / 72 brls. / 9 bxs.

Cottonseed Oil—
New York, 50 brls.

Cream of Tartar—
Rotterdam 20 kgs. / 14 cks.

Dyestuffs—
Extract
Nantes, 225 cks. J. & P. Hutchison

Farina—
Hamburg, 200 bgs.
Stettin, 2,850 sks. Browne, Geveke, & Co.
" 660

Glucose—
Stettin, 60 cks.

Glue—
Antwerp, 45 bls.

Magnesite—
Kybassi, 1,000 t.

Mineral White—
Bordeaux, 100 bgs. G. G. Blackwell, Sons, & Co.
" 700 J. & P. Hutchison

Paraffin Wax—
New York, 350 brls.

Potash—
Rotterdam, 6 cks.

Potassium Carbonate—
Treport, 4 cks.

Potassium Muriate—
Hamburg, 63 cks.

Rosin—
New York, 500 brls.

Soap—
Hamburg, 2 cs.
New York, 200 brls.

Starch—
Antwerp, 40 cs.
Hamburg, 392
Montreal, 1,200 bgs.
Rotterdam, 124

Stearine—
Rotterdam, 64 bls.

Sulphuric Acid—
Rotterdam, 20 cks.

Tallow—
New York, 50 hds. 100 tcs.

Tannin—
Hamburg, 12 cks.

Tartar—
Hamburg, 15 kgs.

Tartaric Acid—
Rotterdam, 10 kgs. / 54 cks.

Ultramarine—
Hamburg, 3 cs.
Rotterdam, 7 cks.

Wood Pulp—
Christiania, 4,015 bls. W. H. Ingram
Drammen, 4,216
Gothenburg, 2,027
Quebec, 7,943
Rotterdam, 163 rolls
Skien, 1,801 bls. W. H. Ingram
Stettin, 75

Zinc Oxide—
Antwerp, 4 cks.

LIVERPOOL.

Week ending August 3rd.

Acetate of Lime—
New York, 1,143 bgs.

Ammonium Nitrate—
Antwerp, 65 brls.

Barytes—
Antwerp, 52 cks. / 69 brls / 50 bgs.
Rotterdam, 100 / 23 cks.

Bones—
Cadiz, 88 bgs.
Havre, 7 pks.
Smyrna, 927 bgs.

Boracite—
Panderma, 700 t.

Castor Oil—
Leghorn, 22 cs.

Coal Products—
Tar Oil
Antwerp, 33 cks

Colours—
Antwerp, 8 cks.
Hamburg, 4 cs.

Cottonseed Oil—
N. Orleans, 500 brls.
Boston, 20 Elder, Dempster & Co.

Cream of Tartar—
Bordeaux, 46 cks.

Dyestuffs—
Argols
Bordeaux, 52 cks.
Patras, 10 brls. S. A. Acratopulo.
Extract
New York, 200 bls. McArthur & Co.
Fiume, 543 brls.
Rouen, 200 cks. Co-op W'sale Society, Ld.
Havre, 2
Halifax, 54 W. I. Chem. Co
Fiume, 210 bls. Oak Extract Co.
" 140 D. Clermont & Donner
Ghent, 20 J. T. Fletcher & Co.
Shumac
Palermo, 3000 bgs.
Valonia
Smyrna, 20 t / 1707 bgs.
Verdigris
Bordeaux, 2 cks.

Gelatine—
Havre, 1 cs.

Glucose—
Dunkirk, 60 bgs.

Glue—
Rouen, 41 cks.
Havre, 5 bgs.
Rouen, 10 bls. J. T. Fletcher & Co.
Hamburg, 80 bgs.
Rotterdam, 150 bgs.
Fiume, 100 pks.

Linseed Oil—
Rotterdam, 230 brls.

Litharge—
Rotterdam, 9 cks.

Lithopone—
Rotterdam, 60 cks.

Logwood Extract—
N. York, 29 cks. / 20 brls.

Mineral White—
Fiume, 200 bgs.

Molasses—
N. Orleans, 600 brls.

Ochre—
Rouen, 10 cks. J. T. Fletcher & Co.

Paint—
New York 12 brls. G. Simpson & Co.
Philadelphia, 6 cs. Manlov, Alliott & Co.
New York, 25 brls. Anglo-Am. Oil Co.
" 2 kgs.

Paraffin Wax—
New York, 350 brls. Thompson & Bedford

Phosphates—
Pt. Royal, 2920 t.

Potash—
Rouen, 98 cks. Co-op. W'sale Society, Ld.
Rotterdam, 4 cks.

Pyrites—
Hemmes, 15 bxs. R. White & Son
Huelva, 3228 t. Matheson & Co.

Red Lead—
Rotterdam, 79 cks.

Rosin—
New York, 3,713 brls.
Baltimore, 1,500

Salicylic Acid—
Hamburg, 10 cs.

Soap—
New York, 34 brls.
Boston, 10 cs. W. Foggitt
New York, 3,000 bxs. Lever Bros., Ld.
Bari, 175 cs.
Naples, 37

Soapstone—
Genoa, 500 bgs.

Starch—
New York, 50 brls. J. Armstrong
Boston 800 bgs.

Bremen, 200 cs.
Antwerp, 445 cs / 71 pks. / 698 cs. Fletcher & Co.
" Rotterdam, 70 cs. Brown, Geveke & Co.
New York, 10 brls. G. Braithwaite & Son

Stearine—
Boston, 50 bags
Rouen, 58 Co-op. W'sale Society, Ld.
Antwerp, 39

Tallow—
New York, 100 trcs. Colby & Co.
New York, 50 G. D. M. Hadjidine N. Co
New York, 50 pps.
B. Ayres, 11 cks.
Boston, 728 tcs.
Baltimore, 130

Tartar—
Bari, 6 cks.

Turpentine—
Savannah, 3,027 brls.
Libau, 10 cks.

Ultramarine—
Bremen, 26 cks.
Rotterdam, 20

Varnish—
New York, 13 brls. W. G. Warren
Havre, 34 cs.

White Lead—
Rotterdam, 53 cks

Wood Pulp—
Gothenburg, 13 bls. R. L. Lundgren
Halifax, 2747 Becker & Co.
Rotterdam, 307
Gefle, 250
New York, 11 cs. Tollotson & Son, Ltd.

Zinc Oxide—
New York, 150 brls.
Antwerp, 30

Zinc White—
Rotterdam 75 cks.

HULL.

Week ending August 5th.

Acids—
Amsterdam, 75 cks. Hull & Netherlands S. S. Co.
Rotterdam, 2 "
Stockholm, 1 Wilson, Sons, & Co., Ld.

Alum—
New York, 13 brls. Wilson, Sons, & Co., Ld.

Aluminium—
New York, 95 bxs. Wilson, Sons, & Co., Ld.

Arsenic—
Hamburg, 1 ck.

Asbestos—
Dunkirk, 1 ble. Wilson, Sons, & Co., Ld.
Hamburg, 20
Hango, 614 sks.

Barytes—
Antwerp, 133 pks. Bailey & Leetham, Ld.
" 35 cks. H. F. Pudsey
" 142
Bremen, 12 Veltmann & Co.
" 89
Hamburg, 5 Bailey & Leetham, Ld.
Rotterdam, 62 Hull & Netherlands S. S. Co.

Castor Oil—
Venice, 15 cs. Wilson, Sons, & Co, Ld.

Chemicals *(otherwise undescribed)*
Antwerp, 1 ck. Bailey & Leetham, Ld.

Coal Products—
Alizarine
Rotterdam, 37 pks. / 3 cks. / 2 brls. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 51 pks. Hull & Netherlands S. S. Co.
Pitch
Antwerp, 5 cks. Wilson, Sons, & Co., Ld.

Colours—
Antwerp, 22 p'cs. Wilson, Sons, & Co., Ld.
" 1 cs. J. Pyefinch & Co.
Dunkirk, 3 Wilson, Sons, & Co., Ld.
Hamburg, 5 cks.
Bremen, 2 Veltmann & Co.
Rotterdam, 4 brls. / 11 cks. / 115 pks. Hull & Netherlands S. S. Co.
Rouen, 24 cks. Wilson, Sons, & Co., Ld.
Venice, 1 cs. "

Cottonseed Oil—
New York, 5 brls. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Bordeaux, 6 cks.
Rotterdam, 2 Hull & Netherlands S. S. Co.

Dyestuffs—
Extract
Bordeaux, 50 cks.
Fiume, 25 brls. Wilson, Sons, & Co., Ld.
New York, 60 "
Indigo
Rotterdam, 2 chts. Hull & Netherlands S. S. Co.
Indigo Extract
Rotterdam, 3 brls. Hull & Netherlands S. S. Co.
Myrabolams
Bombay, 1,923 bgs.
Sumac
Palermo, 818 bgs. Wilson, Sons, & Co., Ld.
" 3,000
Valonia
Smyrna, 245 t.
Trieste, 222 bgs. Wilson, Sons, & Co., Ld.

Dyewood—
Catania, 15 bgs. Wilson, Sons, & Co., Ld.

Farina—
Harlingen, 150 bls. Hull & Netherlands S. S. Co.
Stettin, 450 bgs. Wilson, Sons, & Co., Ld.

Glucose—
New York, 1 brl.
Stettin, 200 bgs.

Glue—
Antwerp, 3 cs. Wilson, Sons, & Co., Ld.
Dunkirk, 7 bls. "
Rouen, 46 cks. "
Rotterdam, 10 bgs. Hull & Netherlands S. S. Co.

Glue Stock—
Hamburg, 506 bls. Wilson, Sons, & Co., Ld.
Rouen, 88 "

Lead Acetate—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Limestone—
Antwerp, 1 cs. Wilson, Sons, & Co., Ld.

Lithopone—
Hamburg, 4 cks.
Rotterdam, 40 Hull & Netherlands S. S. Co.

Magnesite—
Fiume, 10 cs. Wilson, Sons, & Co., Ld.

Manganese—
Hamburg, 1 ck.

Mineral White—
Bordeaux, 10 sks.

Paint—
Hamburg, 5 brls. Bailey & Leetham, Ld.

Painters' Colours—
Antwerp, 60 cks. Bailey & Leetham, Ld.

Potash—
Dunkirk, 10 cks. Wilson, Sons, & Co., Ld.

Pyrites—
Huelva, 650 t.

Red Lead—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

Soap—
Amsterdam, 1 cs. Hull & Netherlands S. S. Co.
Bari, 23
Dunkirk, 1 Wilson, Sons, & Co., Ld.
Hamburg, 1 Bailey & Leetham, Ld.

Soda—
Antwerp, 200 bgs. / 5 dms. Wilson, Sons, & Co., Ld.
Ghent, 50 bgs. "

Starch—
Amsterdam, 30 bgs. Hull & Netherlands S S Co.
Antwerp, 40 cs. Bailey & Leetham, Ld.
" 120 J. Hall & Son
Bremen, 2,744 Veltmann & Co.
Ghent, 372 bls. Wilson, Sons, & Co., Ld.
Rotterdam, 50 Hull & Netherlands S. S. Co.

Stearine—
New York, 29 hds.
Stettin, 1 brl. Wilson, Sons, & Co., Ld.

Sulphur—
Catania, 1,527 bgs. / 187 pks. Wilson, Sons, & Co., Ld.
" 50 t. / 68 cks. / 470 bgs.

Tallow—
Antwerp, 10 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 205 "

Tartar—
Antwerp, 1 ck. Wilson, Sons, & Co., Ld.

Tartaric Acid—
Bari, 90 pks. Wilson, Sons, & Co., Ld
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.

Ultramarine—
Bremen, 2 cks Veltmann & Co.
Rotterdam, 1 cs. / 5 cks. Hull & Netherlands S. S. Co.

Waste Salt—
Hamburg, qty.

White Lead
Amsterdam, 33 cks. Hull & Netherlands S. S. Co.
Rotterdam. 40 "

Wolfram Metal—
Hamburg, 2 cs. Wilson, Sons, & Co., Ld.

Wood Pulp—
Christiania, 1,794 bls Wilson, Sons, & Co., Ld.
Drontheim, 1,240 pks. "
Gothenburg, 169 bls. "
Helsingfors, 510 J. Good & Sons
" 8 Trent Nav. Co.
" 16

Zinc Ashes—
Stettin, 13 cks. Wilson, Sons, & Co., Ld.

Zinc White—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co.
Antwerp, 11 Wilson, Sons, & Co., Ld.
Rotterdam, 14 Hull & Netherlands S. S. Co.

GLASGOW.

Week ending August 10th.

Acetone—
Hamburg, 20 dms.

Antimony Salts—
Hamburg, 2 cs.

Barium Sulphate—
Antwerp, 650 bgs. / 20 cks.

Barytes—
Rotterdam, 77 cks. J. Rankine & Son
Hamburg, 100 bgs.

Bleach—
Hamburg, 42 cks.

Castor Oil—
Antwerp, 28 cks.

Chemicals *(otherwise undescribed)*
Amsterdam, 2 cs. J. Rankine & Son
Hamburg, 1

Coal Products—
Alizarine
Rotterdam, 4 bxs. / 143 cks / 4 brls. J. Rankine & Son
Aniline
Rotterdam, 33 cks. / 7 cs. J. Rankine & Son

Colours—
Rotterdam, 27 pks. / 1 ck. J. Rankine & Son
Hamburg 9 / 1 cs.

Cream of Tartar—
Tarragona, 5 cks.
Barcelona, 10 / 15 cs.

Dextrine—
Hamburg, 200 bgs.

Dyestuffs—
Cutch
Rangoon, 550 bxs. P. Henderson & Co.
Extract
Nantes, 25 cks.
Indigo
Rotterdam, 10 cks. J. Rankine & Son

Farina—
Delfszyhl, 125 bgs.

Glue—
Antwerp, 2 cks.
Rouen, 11 / 36 bls.
Hamburg, 5
Rotterdam, 40 bgs. / 10 cs. 10 J. Rankine & Son

Guano—
Talknafjord, 1,593 bgs.

Linseed Oil—
Antwerp, 2 cks.

Magnesite—
Rouen, 160 t.

Magnesium Sulphate—
Hamburg, 300 bgs.

Ochre—
Rouen, 133 cks.

Oxalic Acid—
Rotterdam, 6 cks. J. Rankine & Son

Painters' Colours—
Antwerp, 2 cks.

Paraffin Scale—
Rangoon, 79 cs. / 473 bgs. P. Henderson & Co.

Potash—
Hamburg, 11 cks. / 41 dms.

Potassium Chloride—
Hamburg, 1,250 bgs.

Powder Blue—
Rotterdam, 3 cks. / 2 cs.

Pyrites—
Huelva, 1,913 t Tharsis Sulphur & Copper Co.

Saltpetre—
Hamburg, 31 kgs.

Soap—
Rotterdam, 3 cs. J. Rankine & Son
Rouen, 4

Starch—
Antwerp, 60 cs. / 10 bgs.
Rotterdam, 53 J. Rankine & Son
Amsterdam, 40 "

Stearine—
Amsterdam, 61 bgs. J. Rankine & Son

Waste Salt—
Hamburg, 251 cks.

White Lead—
Rotterdam, 67 pks. J. Rankine & Son

Wood Pulp—
Gothenburg, 160 bls. / 465 bdls / 211 rolls
Rotterdam, 25 J. Rankine & Son

Zinc White—
Rotterdam, 50 cks. / 35 pks. J. Rankine & Son

TYNE.

Week ending August 5th.

Antimony Ore—
Tampico, 4,006 bgs. Cookson & Co.

Asbestos—
Hamburg, 40 bgs. Tyne S. S. Co.

Barytes—
Hamburg, 11 cks. Tyne S. S. Co.

Borax—
Hamburg, 8 cks. Tyne S. S. Co.

Colours—
Rotterdam, 1 ck. Tyne S. S. Co.

Farina—
Hamburg, 10 bgs. Tyne S. S. Co.

Iron Slag—
Cartagena, 115 t. Cookson & Co.

Limestone—
Antwerp, 7 crts. Tyne S. S. Co.
Phosphates—
Antwerp, 430 t. Langdale's Chemical M. Co.
Potash—
Hamburg, 20 cks. Tyne S. S. Co.
Pyrites—
Huelva, 2,919 t. Scott Bros. & Co.
Rosin—
Hamburg, 1 ck. Tyne S. S. Co.
Starch—
Antwerp, 180 cs. Tyne S. S. Co.
Rotterdam, 153 "
Tartaric Acid—
Hamburg, 4 cks. Tyne S. S. Co.
Wolfram—
Hamburg, 3 cs. Tyne S. S. Co.
Wood Pulp—
Abo, 46 bls. Good & Redmayne
Bergen, 23
Christiania, 496
Rotterdam, 112 Tyne S. S. Co.
Zinc Oxide—
Antwerp, 10 brls. Tyne S. S. Co.

GOOLE.

Week ending August 2nd.

Antimony—
Boulogne, 2 cks.
Barytes—
Antwerp, { 50 bgs. 89 cks.
Hamburg, 20
Rotterdam, 100 bgs.
Caoutchouc—
Boulogne, 12 cks. 1 cs.
Coal Products—
Alizarine
Rotterdam, 58 cks.
Naphthaline
Hamburg, 2 cks.
Pitch
Amsterdam, 25 cks.
Colours—
Hamburg, 37 cks. 8 cs.
Dyestuffs *(otherwise undescribed)*
Boulogne, { 19 cks. 104 pks. 31 cs.
Rotterdam, 425 93
Dyestuffs—
Extract
Hamburg, 100 bgs. 90 brls.
Logwood
Belize, 972 t.
Glue—
Antwerp, 25 bgs.
Iron Oxide—
Antwerp, 350 t.
Phosphates—
Dunkirk, 80 t.
Potash—
Antwerp, 2 cks.
Hamburg, 10
Potassium Sulphate—
Dunkirk, 16 dms.
Quebracho Extract—
Antwerp, 41 brls.
Hamburg, 355 bgs.
Saltpetre—
Rotterdam, 170 bgs.
Starch—
Ghent, 288 bxs.
Sulphate of Lime—
Hamburg, 7 cks.
Tartar—
Hamburg, 5 kgs.
Waste Salt—
Hamburg, { 147 cks. 238 bgs.

GRIMSBY.

Week ending August 5th.

Caoutchouc—
Antwerp, 3 cs.
Hamburg, 32
Rotterdam, 1
Chemicals *(otherwise undescribed)*
Antwerp, 2 cks.
Hamburg, 2 5 pks.
Coal Products—
Pitch
Hamburg, 57 cks.
Colours—
Antwerp, 5 cks. 1 cs. 70 pks.
Hamburg, 13 15 245
Rotterdam, 8 20
Dyestuffs *(otherwise undescribed)*
Dieppe, 16 cks.
Farina—
Hamburg, 399 bgs.
Saltpetre—
Antwerp, 125 bgs.
Starch—
Antwerp, 192 cs.
Wood Pulp—
Helsingborg, 800 bls.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 9th.

Acids—
St. Helena, 12 cs. £17
Alkali—
New York, 7 t. 18 c. £129
Lyttelton, 2 3 6
Ammonia—
Calcutta, 6 cs. £22
Santos 5 11
Palermo, 2 cyldrs. 25
Ammonium Carbonate—
Rouen, 5 t. 11 c. £15
Montreal, 1 14 45
Hamburg, 3 10 93
Ammonium Muriate—
Christiania, 2 t. £43
Ammonium Nitrate—
New York, 10 cks. £47
Ammonium Sulphate—
Cape Town, 5 t. £48
Durban, 225 2,850
Sourabaya, 115 1,490
Stettin, 51 625
Hamburg, 120 1,465
Barbadoes, 50 630
Demerara, 25 310
Borax—
Antwerp, 5 cs. £13
Newcastle, 12 kgs. 11
Auckland, 1 t. 40
Calcium Chloride—
Fremantle, 20 t. £17 10
Carbonic Acid Gas—
Rotterdam, 8 flsks 8 cyldrs. £51
Channel Is., 53 tubes 20
Caustic Soda—
Dunedin, 10 t. £90
Nelson, 7 64
Pt. Elizabeth, 6 18 c. 136
Durban, 7 6
Chemicals *(otherwise undescribed)*
Demerara, 100 pks. £27
Antwerp, 25 cks. 377
New York, 10 96
Philadelphia, 16 284
Batoum, 156 brls. 128
Paris, 10 25 78
Salonica, 10 cs. 59
St. Petersburg, 3 cks. 32
Durban, 7 5 160
Fremantle, 50 550
Auckland, 66 127
Brisbane, 36 16
Montreal, 25 kgs. 26
Nelson, 2 11
Hamburg, 8 70
Rotterdam, 10 80
Brussels, 3 35
Wellington, 5 23
Citric Acid—
Brisbane, 10 c. £83
Newcastle, 2 kgs. 5
Coal Products—
Anthracene
Cologne, 180 cks. £376
Carbolic Acid
New York, 40 cks. £300
Sydney, 5¼ 10 kgs. 20 dms. 25
Creosote
New York, 2 cs. £19
Stockholm, 300 cks. 230
Dyes
Boston, 5 cks. £51
Naphthaline
Tientsin, 4 cks. £6
Hamburg, 7 59
Cologne, 17 144
Pitch
B. Ayres, 15 brls.
Batoum, 8 cks. £40
Boston, 250 350 326
Sydney, 5 5
Tar
Pt. Elizabeth, 850 dms. £36
B. Ayres, 40 brls. —
Hamburg, 4 cks. 6
Sydney, 2 4
Wellington, 25 5
Duisberg, 20 35
Tar Oil
Hamburg, 100 cks. £50
Copper Sulphate—
Pt. Elizabeth 5 c. £7
Treport, 11 t. 1 225
Cape Town, 3 5
Cream of Tartar—
Pt. Elizabeth, 2 c. £10
Wellington, 1 t. 7 104
Disinfectants—
Penang 175 dms £53
Alleppey, 13 cs. 23
Aden, 20 cks. 10
Riga, 7 15
Rio de Janeiro, 8 10
Alexandria, 80 22
Shanghai, 10 10
Glycerine—
Hamburg, 19 t. 8 c. £530
Manure—
Palermo, 100 t. £500
Landerneau, 86 688
Lisbon, 20 5 c. 50
Limau, 354 4 890
Sables d'Olonne 95 500
Vancouver, 10 12 585
Gothenburg, 68 19 175
Riga, 488 13 1,125
Oxalic Acid—
Newcastle, 7 cks. £73
Pearl Ash—
Newcastle, 19 c. £14
Phosphoric Acid—
Durban, 10 cks. £33
Phosphorus—
Bombay, 1 c. £12
Potassium Cyanide—
New York, 40 cs. £410
Durban, 8 t. 819
Auckland, 5 502
E. London, 15 1,601
Charters Towers, 48 535
Delagoa Bay, 27 3 c. 100 3,998
Sydney, 4 400
Potassium Prussiate—
Antwerp, 1 t. 2 c. £75
Genoa, 8 cks. 120
Saltpetre—
Pt. Elizabeth, 9 c. £10
Christchurch, 12 13
Dunedin, 1 t. 20
Santos, 6 9 137
Sydney, 2 44
Oporto, 3 14 70
B. Ayres, 1 2 24
Sheep Dip—
Pt. Elizabeth, 3 c. £8
Boston, 11 8
Launceston, 13 17
B. Ayres, 19 t. 1 20 cks. 445
Calcutta, 1 13 56
Durban, 3 14 131
Soda—
Calcutta, 2 t. 3 c. £7
Soda Crystals—
Pt. Elizabeth, 3 t. 6 c. £11
Sodium Bicarbonate—
Pt. Elizabeth, 1 t. 7 c. £20
Auckland, 201 5 53
Fremantle, 10 13
Sulphur—
Pt. Elizabeth, 100 kgs. £42
Sulphuric Acid—
Aden, 2 t. 2 c. £10
Superphosphates—
Riga, 481 t. 7 c. £1,210
Strychnine—
Brisbane, 20 cs. £99
Tartaric Acid—
Nelson, 3 c. £17
Auckland, 10 56
Durban, 3 20
Wellington, 3 16
Washing Powder—
Brisbane, 2 t. 2 c. £40

LIVERPOOL.

Week ending August 9th.

Acetate of Lime—
Winnipeg, 1 t. 4 c. £12
Aluminous Cake—
Melbourne, 7 t. 4 c. £18
Calcutta, { 1,618 slabs 29 t. 3 c. 2 q. 224
Ammonium Carbonate—
Bremen, 1 t. 10 c. £43
Valparaiso, 1 26
Genoa, 1 26
Ammonium Muriate—
Bilbao, 5 t. £100
Ammonium Sulphate—
La Pallice, 28 t. 17 c. 3 q. £348
G. Canary, 5 64
L. Palmas, 27 329
Newport, N., 102 7 1,256
N. York, 25 8 308
Trinidad, 25 11 309
Tarragona, 6 19 1 86
Valencia, 25 9 2 217
Bleaching Powder—
Baltimore, 175 cks.
Barcelona, 15
Bilbao 148
Bombay, 30 cs.
Boston, 173
Cambrai, 18
Detroit, 30
Genoa, 153
Ghent, 58
Havana, 50 brls.
Leghorn, 15
Maranham, 6
Nantes, 31 10
N. York, 122
S. Francisco, 100
Boracic Acid—
Rotterdam, 1 t. £25
Maracaibo, 1 ck. 6
Borax—
Sydney, 3 t. 2 q. £44
Antwerp, 1 9 c. 2 25
Stettin, 7 116
Havana, 2 3 31
Tampico, 10 2 9
Rotterdam, 2 15 47
E. London, 2 75
Calcium Chloride—
Sydney, 18 t. £41
M. Video, 2 12 c. 6
Calcutta, 2 3 5
Caustic Potash—
Otago, 6 c. £9
Caustic Soda—
Adelaide, 30 dms.
Antwerp, 36
Barcelona, 340
Bari, 18
Bombay, 30
B. Ayres, 10 kgs.
Callao, 50
Cardenas, 15
Carupano, 2
Catania, 38
Corinto, 26
Freemantle, 10
Genoa, 320
Gutujewsky, 250
Hamburg, 165
Hiogo, 50
Honolulu, 10
Kobe, 50
Leghorn, 10
Lunon, 15
Malaga, 20
Maracaibo, 10
Melbourne, 183

Nagasaki, 50
New York, 20
Para, 20
Penang, 10
Perth, 15
Seville, 50
Smyrna, 10
Stettin, 210 bxs.
Sydney, 15
Tampico, 430
Rangoon, 5
R. Janeiro, 20
R. Grande, 50
Rotterdam, 124 15 cks.
S. Francisco, 50
Venice, 35
Wilmington, 77 brls.
Woodstock, 50

Chemicals *(otherwise undescribed)*
Boston, 2 t. 10 c. £86
Malaga, 1 17
Palermo, 1 1 17
Barcelona, 5 80
R. Janeiro, 6 600
Genoa, 1 100
M. Video, 24 10 72
Delagoa Bay, 5 1 500
Philadelphia, 29 17 746
Santos, 3 4 1 q 6
Havana, 7 5 2 23
Oporto, 5 2 2 36

China Clay—
Baltimore, 200 cks.
Barcelona, 100 bgs.
Boston, 846
Maranham, 8
N. York, 150 1,000
Pernambuco, 12 t. 10 c.
Philadelphia, 200 cks.
Ranegange, 140
R. Janeiro, 30

Citric Acid—
Bombay, 3 c. 2 q. £17
Rockhampton, 1 10

Coal Products—
Aniline Colours
Boston, 2 kgs.
N. York, 18 cks.
Quebec, 7
Aniline Oil
Barcelona, 20 brls.
Genoa, 15 dms.
Aniline Salt
Barcelona, 30 brls.
Genoa, 1 t.
Carbolic Acid
Yokohama, 5 t. £315
Colombo, 2 cs. 10
Rouen, 3 t. 4 c. 228
Rotterdam 4 10 343
Creosote Oil
Bordeaux, 49 cks.
Newport, N., 250 brls.
Pitch
Antwerp, 100 t.
Tar
Akassa, 12 brls.
Cameroons, 7 cks.
Ibrail, 25
Johannesburg, 425 dms.
Manaos, 10
Pretoria, 400

Copper Sulphate—
Galatz, 5 t £119
Genoa, 4 16 c. 2 q 125
Corinto, 1 26
Corunna, 2 3 52
Pernambuco, 10 12
Algoa Bay, 4 2 5
Sydney, 3 72

Cream of Tartar—
Santos, 4 c. £16

Disinfectants—
Jamaica, 4 c. 2 q. £8

Dried Blood—
Teneriffe, 9 t. 19 c. 3 q. £83

Glycerine—
Sydney, 12 t. 17 c. 3 q £615
Lisbon, 9 8 3 324
Montreal, 9 17 2 396

Magnesia—
Havre, 24 cs.
Odessa, 15

Magnesium Chloride—
Marseilles, 6 c. 1 q. £4

Manganese Sulphate—
Winnipeg, 19 c. 1 q. £21

Manure—
B. Ayres, 1 t. 13 c. £36
G. Canary, 38 166

Oxalic Acid—
Boston, 6 t. 10 c, £170
Philadelphia, 11 6 2 q. 280

Paint—
Amsterdam, 16 dms.
Antwerp, 4 cks.
Beira, 130 kgs.
Beyrout, 75
Calcutta, 100
Cape Town. 55 dms.
Cartagena, N.G., 4 cs. 28 kgs.
Colombo, 8
Curacco, 1 110
Fernando Po, 60
Gibraltar, 36 pkgs.
Hamburg, 4 dms. 30 kgs.
Havana. 10 cks.
Iquique, 10 60
Kerasunde, 6
Lisbon, 11 dms.
Maceio, 5
Malta, 13 7 kgs.
Mauritius, 300
Melbourne, 63
M. Video, 2 9
Nuevitas, 10
Pt. Natal, 11
Punta Arenas,
Santiago de Cuba, 2 cks.
Singapore, 35 dms.
Tampico, 16
Rio de Janeiro, 20
Triticorin, 10 kgs.

Painters Colours—
Algoa Bay, 22 pkgs.
Amsterdam, 50 bgs.
Boston, 4 cs.
B. Ayres, 151
Campeche, 100 kgs. 5 cks.
Cape Town, 30 12
Hamburg, 4 brls. 100 bgs.
Havana, 9
Marseilles, 50
Montreal, 31 kgs. 2 cks.
New York, 2 bxs. 4
Philadelphia, 4

Paraffin Wax—
Piræus, 8 bgs.

Phosphorus (Amorph.)—
Kingston, 1 cs. £11
Trinidad, 3 28

Potassium Carbonate—
New York, 10 t. 12 c. £192

Potassium Chlorate—
Libau, 10 t. £300
Shanghai, 8 10 c. 280
Gutujewsky, 31 10 939
Malta, 4 7
Catania, 15 22
Rotterdam, 19 31
Genoa, 10 14
New York. 5 150
Santos, 15 22
St. Petersburg, 15 456

Potassium Prussiate—
Santos, 6 c 2 q. £31
Genoa, 1 t. 4 1 85

Salammoniac—
Montreal, 9 c. £14
Valparaiso, 10 14

Salt—
Akassa, 2,259 bgs.
Antwerp, 135 t.
Baltimore, 100 652 sks.
Batanga, 200 bgs.
Black River, 150
Boston, 100 t.
B. Ayres, { 100 bgs. / 20 t. 6 c.
Calcutta, 2,069
Canada, 65
Chicago. 225
Dalhousie, 200
Eloby, 5 10
Ghent, 40
Halifax, 114
Lagos, 137 3
Landana, 7 7
Loango, 15 3
Malta, 12 10
Matadi, 12 10
Melbourne, 130
Mossel Bay, 25
Montreal, 468
New York, 215
Norrkoping, 10
Sierra Leone, 113
Sydney, 292
Quebec, 120

Salt Cake—
Baltimore, 100 t. 14 c. £187
Leghorn, 100 225

Saltpetre—
Para, 2 t. 10 c. £53
Santos, 1 4 27

Satinite—
Rotterdam, 5 t. £13

Sheep Dip—
B. Ayres, 2 t. 19 c. £104
Calcutta, 120 dms. 30

Soap—
Abonnema, 560 bxs.
Akassa, 76 dms.
Alexandria, 147
Amsterdam, 200 cs.
Antwerp, 37
Axim, 113
Barbadoes, 100
Benin, 500
Bhamo, 8
Bluefields, 200
Bombay, 32
B. Ayres, { 27 6,448 / 3 brls.
Calcutta, 10 cs.
Callao, 15
Cameroons, 460
Canaria, 438
Cape Town, 750 50
Copenhagen, 40
Delagoa Bay, 300
Dominica, 20
E. London, 902 10
Eloby, 20
Galata, 20
Genoa, 214
Ghent, 30
Gibraltar, 300 2
Grenada, 100
Guadeloupe, 500 bdls.
Iquitos, 500
Johannesburg, 100 400 dms.
Karachi, 50
Kingston, Jam., 2,030
Lagos, 40
Limassol, 21
Madras, 2
Malta, 260 50
Mannheim, 926
Maranham, 1
Mauritius, 1
Montserrat, 65
Mossel Bay, 142
Montreal, 20 kgs
New York, 123
Para, 600 bxs. 1
Penang, 403
Piræus, 50
Pt. Natal, 1,700 20
Pt. Novo, 200
Pt. Said, 80
Punta Arenas, 5
Rangoon, 1,472
Rawal Pindi, 10
Rotterdam, 361
St. Lucia 123
San Juan, 200
Shanghai, 24,202
Sierra Leone, 250
Singapore, 3,856
Smyrna, 2
Surinam, 150
Sydney. 1,100
Teneriffe, 336
Toronto, 600
Rangoon, 15
Rotterdam, 75
Trinidad, 1,447 1
Winnipeg, 500
Zanzibar, 250 brls.

Soda—
Shanghai, 400 kgs.

Soda Ash—
Ancona, 250 bgs.
Antwerp, 18 cks.
Baltimore, 32 tcs.
Barcelona, 50
Bombay, 25 kgs.
Boston, 26 35
B. Ayres, 203 brls.
Calcutta, 250
Callao, 20
Copenhagen, 300 bgs.
Johannesburg, 100 kgs.
Kobe, 100
Lisbon, 100 bgs.
Mexico City, 37
Monterey, 17
M. Video, 75
Rio de Janeiro, 25 25
New York, { 40 18 22 / 91 tcs.
Philadelphia, 32 37
Shanghai, 87
Tilsonbury, 30
Venice, 100

Soda Crystals—
Bombay, 250 kgs.
Boston, 280 cks.
Gibraltar, 40 brls.
New York, 150 140
Shanghai, 30

Sodium Bicarbonate—
Alicante, 17 kgs.
Ancona. 70 4 cks.
Antwerp, 187 2
Barbadoes, 4
Barcelona. 125
Callao, 1,800 6
Cape Town, { 30 bgs. / 10 kgs.
Cartagena, 40
E. London, 30 bgs.
Genoa, 100 kgs.
Gutujewsky, 500 20
Havana, 25
Honolulu, 20
Johannesburg, 100 bgs.
Karachi, 125 kgs.
Kobe, 250
Marseilles, 20 dms.
M. Video, 45
Montreal, { 50 bgs. / 120 kgs.
Naples, 80
Ottawa, 50 bgs.
Palermo, 40 kgs.
Piræus, 19 cks.
Riga, 100
Rockhampton, 40 kgs.
Rotterdam, 40
Shanghai, 200
Valencia, 15
Valparaiso, 25

Sodium Carbonate—
Kingston. Jam., 2 cs.
Maranham, 8 cks.

Sodium Chlorate—
Boston, 225 kgs.
Philadelphia, 50
Vera Cruz, 4 cks.

Sodium Nitrate—
New York, 6 cks.

Sodium Prussiate—
Philadelphia, 26 cks.

Sodium Silicate—
Santos, 10 brls.

Sulphur—
Adelaide, 15 t. £65
Chatham, N.B., 300 3 c. 1,275
Maceio, 19 2 q. 7

Sulphuric Acid—
Maranham, 2 t. 10 c. £20

Superphosphates—
Lisbon, 450 t. 5 c. £952

Tartaric Acid—
M. Video, 4 c. £22
Santos, 5 31

Varnish—
Antwerp, 10 cks.
Beira, 6 cs.
Cape Town, 5
Cartagena, N.G., 1
Constantinople, 6
Genoa, 4 pks.
Melbourne, 10 56 3 bxs.
M. Video, 2
Pacasmayo, 2
Savanilla. 5 dms.
St. John's, N'fd., 4

White Lead—
Johannesburg. 360 kgs.
St. John's, N'fd., 4 cks.

Zinc Chloride—
Ghent, 1 t. 18 c. 1 q. £29

MANCHESTER.

Week ending August 9th.

Bones—
Beauvais, 346 bgs.
Treport, 146

Caustic Soda—
Jaffa, 5 dms.
Rio G. do Sul, 100

Chemicals *(otherwise undescribed)*
Alexandretta, 10 brls.
Germany, 8 cks.
Jaffa, 20
Tripoli, 50

Coal Products—
Aniline
Germany, { 1 bx. / 15 kgs. 2 brls.
Aniline Oil
Germany, 6 brls.
Aniline Salt
Germany, 10 cks.
Beta Naphthol
Germany, 1 brl.
Naphtha
Treport, 25 brls.

Naphthylamine
Germany, 61 cks.
Pitch
Belgium, 277 t. 2 c.
Colours—
Germany, 1 ck.
Copperas—
Bagdad, 150 brls.
Copper Sulphate—
Bagdad, 20 brls.
Dyestuffs—
Extracts
Germany, 10 cks.
Linseed Oil—
Jaffa, 13 brls.
Limassol, 4
Paint—
Jaffa, 4 cks.
Painters' Colours—
Jaffa, 4 brls.
Salammoniac—
Beyrout, 10 brls.
Salt—
Gothenburg, 1,350 sks.
Montreal, 100 t.
St. John's, 450 5,400
Sweden, 1,826 bgs.
Soap—
Tontah, 90 cs.
Soda Ash—
Sweden, 6 cks.
Soda Crystals—
Limassol, 4 brls.
Sodium Naphthionate—
France, 59 bgs.
Germany, 34 cks.
Tallow—
Gothenburg, 6 cks.
Holland, 1
Turpentine—
Jaffa, 1 brl.
Limassol, 1 dm.
Varnish—
Gothenburg, 1 dm.

HULL.

Week ending August 5th.

Ammonium Sulphate—
Antwerp, 224 bgs.
Hamburg, 100
Stettin, 500
Basic Slag—
Stettin, 201 t.
Caustic Soda—
Genoa, 50 dms.
Helsingfors, 38 cks.
Chemicals *(otherwise undescribed)*
Abo, 2 cks.
Amsterdam, 46 14 btls.
Antwerp, 20 360 pks
Christiania, 10
Copenhagen, 3 2 cs. 13 btls.
Danzig, 27 pks.
Dunkirk, 51
Gothenburg, 44 556 slbs.
Hamburg, 25 40
Helsingfors, 50 pks.
Rotterdam, 32
Stettin, 6
Stockholm, 32 sks.
Wyburg, 1
Coal Products—
Creosote
New York, 50 cks.
Pitch
Antwerp, 72 t.
Hamburg, 1 cs.
Tar
Christiansund, 18 cks.
Copenhagen, 30
Dunkirk, 30
Rotterdam, 11
Cottonseed Oil—
Copenhagen, 10 t. 1 c.
Dunkirk, 15
Hamburg, 8 11
Rotterdam, 23 7
Stettin, 16
Dyestuffs *(otherwise undescribed)*
Dunkirk, 83 bgs.
Glucose—
Drontheim, 10 cks.
Glue—
New York, 60 cks.
Linseed Oil—
Amsterdam, 1 t. 14 c.
Antwerp, 10
Christiania, 3 3
Christiansand, 1 15
Christiansund, 3
Drontheim, 4 4
Gothenburg, 7
Hamburg, 9 14
Rotterdam, 9
Manure—
Antwerp, 17 cks.
Libau, 1,042 bgs.
Mineral White—
Mariopol, 1 ck.
Paint—
Antwerp, 6 cks.
Christiania, 10
St. Petersburg, 1
Painters' Colours—
Abo, 5 cks.
Amsterdam, 4
Antwerp, 61 2 cs.
Bremen, 1
Christiania, 74 3
Christiansund, 20 dms. 72 pks.
Copenhagen, 7
Danzig, 26
Dunkirk, 1
Drontheim, 13 20 dms.
Ghent, 28 72
Gothenburg, 10 1 92
Hamburg, 11 3
Helsingfors, 41
Konigsberg, 10 15 pks.
Leghorn, 1
New York, 242 24 1 dm.
Rotterdam, 28
Rouen, 5
St. Petersburg, 138
Stettin, 13
Stockholm, 100 2
Uleaborg, 3 2
Wasa, 1
Soap—
Amsterdam, 116 cs.
Starch—
Hango, 20 cs.
Tallow—
Genoa, 56 cks.
Stockholm, 5
Wasa, 51
Varnish—
Amsterdam, 1 cs.
Antwerp, 1 ck. 1
Christiansund, 1 dm.
Drontheim, 1
Gothenburg, 1
Hamburg, 5
Helsingfors, 4
Norrkoping, 2
Wasa, 5
Waste Salt—
Amsterdam, 6 t.

GLASGOW.

Week ending August 10th.

Ammonium Carbonate—
Barcelona, 1 t. 3 c. 2 q.
Ammonium Muriate—
Canada, 16 t. 14 c.
Ammonium Sulphate—
Genoa, 18 t. 3 c. 2 q.
Italy, 20 3 2
San Pedro, 29 7 2
Boracic Acid—
Rotterdam, £72
China Clay—
Almedabad, 10 t. 8 c.
Coal Products—
Creosote Oil
France, £550
Pitch
Karachi, £20
Tar
Canada, £130
Danzig, 35 t.
Karachi, 61
Tar Oil
France, £130
Dextrine—
Italy, £135
U.S.A., 227
Glucose—
Cape Town, 12 t. 2 c.
Guano—
Malaga, 10 t. 9 c. 3 q.
Gutta Percha—
Amsterdam, 215 lbs.
Lead Nitrate—
Canada, £100
Rotterdam, 23
Linseed Oil—
Canada, 8 t. 13 c. 3 q.
Rio de Janeiro, 2
Magnesium Sulphate—
Christiania, 10 t.
Montreal, £25 18s.
Manganese (Recovered)—
Rotterdam, £120
Manure—
San Pedro, 35 t. 15 c. 2 q.
Painters' Colours—
Bombay, £271
Cape Town, 15
Rotterdam, 10 c. 2 q.
Paraffin Wax—
Barcelona, £550
Danzig, 1 t.
France, 215
Genoa, 316
Italy, 517
Spain, 279
Potassium Bichromate—
Antwerp, £34
Christiania, 11
Toronto, 169
Red Lead—
Bombay, £85
Red Oxide—
Rotterdam, 18 c. 1 q.
Rosin Oil—
Rotterdam, £10
Salt—
Rotterdam, 5 c.
Soap—
Cape Colony, 2 t. 10 c.
Sodium Bichromate—
Genoa, 13 t. 6 c. 3 q.
Superphosphates—
San Pedro, 250 t. 4 c. 3 q.
White Lead—
Cape Town, £35
Johannesburg, 48

TYNE.

Week ending August 5th.

Alkali—
Hamburg, 4 t. 12 c. 1 q.
Alumina Sulphate—
Rouen, 5 t.
Ammonium Carbonate—
Riga, 10 c.
Ammonium Sulphate—
Barcelona, 94 t. 1 c. 3 q.
Antimony—
Amsterdam, 10 t.
Christiania, 6 c.
Gothenburg, 1
Hamburg, 8
Riga, 2
St. Petersburg, 30
Arsenic—
Barcelona, 4 t. 5 c. 3 q.
Barium Binoxide—
Barcelona, 6 t. 9 c. 1 q.
Rotterdam, 8 10
Rouen, 42 11 2
Barium Carbonate—
Antwerp, 19 t. 13 c.
Copenhagen, 2 2 q.
Bleaching Powder—
Amsterdam, 2 t. 4 c. 1 q.
Antwerp, 24 19 1
Copenhagen, 21 8 1
Drontheim, 10
Gothenburg, 26 3 2
Hamburg, 5 1
Rotterdam, 27 10 2
St. Petersburg, 63 3 1
Caustic Soda—
Antwerp, 25 t. 10 c. 2 q.
Barcelona, 81 14
Bergen, 2 18 2
Christiania, 2 18
Gothenburg, 60 15 2
Helsingfors, 14 17
Riga, 1 18
St. Petersburg, 100 2 1
Chemicals *(otherwise undescribed)*
Copenhagen, 43 t. 6 c. 1 q.
Copperas—
Copenhagen, 5 t. 8 c. 1 q.
Tromso, 3 1
Iron Oxide—
Constantinople, 5 t.
Litharge—
Amsterdam, 5 c. 1 q.
Hamburg, 1 t. 2 2
Magnesia—
Antwerp, 1 t. 6 c. 2 q.
Barcelona, 10 3 3
Batoum, 5
Hamburg, 2 1
Odense, 9 3
St. Petersburg, 5 8
Paint—
Copenhagen, 19 c. 1 q.
Hamburg, 5 t.
Smyrna, 4 11
Red Lead—
Aalborg, 2 t. 5 c. 1 q.
Amsterdam, 2 3 1
Christiania, 2 4 3
Copenhagen, 2 4 3
Constantinople, 2
Hamburg, 26 3
Odessa, 6 4
Stavanger, 2 3 1
St. Petersburg, 26 1
Tromso, 5 3
Rosin—
Tromso, 3 c. 1 q.
Soda—
Amsterdam, 30 t.
Christiania, 8 17 c.
Rotterdam, 30 2
Tromso, 1 2 3
Sodium Sulphate—
Christiania, 100 t.
St. Petersburg, 20 6 c. 3 q.
Sulphur—
Christiania, 100 t.
Muhlgraben, 125
Superphosphates—
Riga, 1,302 t. 2 c.
Turpentine—
Tromso, 3 c. 2 q.
Varnish—
Tromso, 14 c. 1 q.
Venetian Red—
Tromso, 9 c. 3 q.
White Lead—
Archangel, 10 c.
Zinc Oxide—
Archangel, 9 c. 3 q.

GOOLE.

Week ending August 2nd.

Alkali—
Antwerp, 7 cks.
Chemicals *(otherwise undescribed)*
Amsterdam, 6 cks.
Boulogne, 13
Ghent, 3
Hamburg, 5 crbys.
Coal Products *(otherwise undes.)—*
Amsterdam, 116 cks.
Boulogne, 61 2 cs. 3 dms.
Ghent, 2
Rotterdam, 53 2
Coal Products—
Pitch
Antwerp, 77 t.
Dyestuffs *(otherwise undescribed)*
Hamburg, 2 cks. 1 cs.
Painters' Colours—
Amsterdam, 2 dms.
Antwerp, 1 ck. 1 cs.
Boulogne, 3
Ghent, 3 1
Rotterdam, 7 1

GRIMSBY.

Week ending August 5th.

Alkali—
Port au Prince, 259 dms.
Caoutchouc—
Port au Prince, 2 cs.
Coal Products *(otherwise undes.)—*
Dieppe, 137 cks.
Dyewood Extract—
Gothenburg, 4 cks.
Painters' Colours—
Antwerp, 1 kg.
Hamburg, 2 cks.
Rotterdam, 1 cs. 1 pk.

PRICES CURRENT.

WEDNESDAY, Aug. 16, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9	&	8/3
,, Glacial .. .. ,,		35/-	
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric.. .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	18	15	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B.. .. .. ,,	0	0	2¾
,, = 24° B.. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate.. .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/-	&	33/-
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. .. per ton	12	8	9
,, ,, (grey) Hull .. .. ,,	12	5	0
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide).. .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	42/6	to	65/-
Bleaching Powder, 35 % .. .. nett ,,	4	15	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	11	10	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk.. .. .. .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20% .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's.. .. ..per gallon	0	0	8
,, 50/90 ,, ... ,,	0	0	10
Carbolic Acid (crude 60°).. .. .. ,,	0	2	1
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. ..per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	4
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4¼
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	10	0
Solvent Naphtha, 90% at 160° .. ..per gallon	0	1	2½
Copper .. .. per ton	75	12	6
,, Sulphate .. .. ,,	24	0	0
,, Oxide (copper scales) .. .. ,,	58	0	0
Glycerine (crude) 80% .. .. ,,	27	10	0
,, (distilled S.G. 1250°) .. .. ,,	45	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet)	16	2	6
,, Litharge Flake (ex ship) .. .. ,,	17	0	0
,, Acetate (white ,,) .. .. ,,	22	0	0
,, ,, (brown ,,) .. .. ,,	17	15	0
,, Carbonate (white lead) pure .. .. .. ,,	18	10	0
,, Nitrate .. .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	4	17	6
,, ,, (grey) (ex ship) .. .. ,,	7	15	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	10	0
Linseed .. .. ,,	22	0	0
Stearine .. .. ,,	26	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	10	0
,, Chlorate .. .. per lb.	0	0	3¼
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 %.. .. per ton	23	10	0
,, ,, ,, 75/80 % .. ,,	18	10	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	0	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	7⅞
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	3¼
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	12	6
,, Acetate (ex-ship) .. .. ,,	13	0	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax).. .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	0	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	0	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	2	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	7½
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate.. .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	6
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	4	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95%.. .. .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4½
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) ... . ,,	6	0	0
,, Brimstone: Best quality.. .. .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	26	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots.. .. .. per ton	145	10	0
Zinc (Spelter) .. .. ,,	24	2	6
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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AND

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LATE ADVERTISEMENTS.

SOUTH AFRICA.—A gentleman, who has just returned from South Africa, will be glad to hear from manufacturers of Sheep Dips, Disinfectants, etc., who desire a Representative to introduce their products into that country. Has a thorough knowledge of the trade and a good connection, having been engaged in a similar capacity for some years.—Apply to "Africa," *Chemical Trade Journal* Office, Manchester.

TENDER.

BOROUGH OF WIDNES.—The Corporation invite Tenders for the purchase of about 1000 TONS OF GAS TAR from their Gas Works, for the twelve months ending 30th September, 1900.—Forms of tender and conditions of contract may be obtained from Mr. Isaac Carr, M.I.C.E., Gas Works, Widnes.—Tenders endorsed "Tar" to be delivered to the undersigned not later than the 4th prox.—The higest or any tender not necessarily accepted.

Town Hall, Widnes,
24th August, 1899.

H. S. OPPENHEIM,
Town Clerk.

Notices.

All communications for the *Chemical Trade Journal* should be addressed, and Cheques and Post Office Orders made payable to—

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Trade Advertisements, Announcements in the Directory Columns, and all Advertisements not prepaid, are charged at the Tariff Rates, which will be forwarded on application.

THE DEVELOPMENT OF WATER POWER.

SOME months ago we had occasion to dwell upon the power of water—not in the sense that Sir Wilfrid Lawson would descant thereon, nor as a diluent to that which he would suppress—but rather to the motive power that is running to waste in running waters.

The possibilities that lie in the employment of water power are so great that we shall do well to give unremitting attention to every prospect of utilising and acquiring sources of water power. We are constantly being told that we are standing on the threshold of the Electrical Age, but this statement does not disconcert those who feel sure they will continue to thrive by the enduring importance of Steam. Where coal or wood is plentiful steam will have the better of electricity, but we are almost daily having instances of the extreme importance of water power where fuel of any sort is scarce. At the same time, we have to face the great inroads we are making upon our own apparently inexhaustible coal resources. The moment there is the least semblance of truth in the warnings of those who foretell the depletion of our coal supplies, cheap coal will be a thing of the past. With the departure of cheap coal we must look for the departure of many industries, unless we can supply other sources of power.

Primarily, electricity will then have preference, and we shall only be able to offer it at a reasonable price if we are prepared to generate it by the same cheap method that is adopted elsewhere—namely, by water power. There is much that is significant in the way industries are flocking to Niagara, and those not all purely American enterprises. Elsewhere in this issue we give a summary of the development which has taken place during the last few years, and it is an eye-opener to learn positively that eighteen works will be using 45,000 electrical horse-power before the end of this year, the actual production and delivery of which cost £25,000., whereas the users are willing to pay £150,000. for it, and evidently consider they are purchasing power economically at that.

Apart from the gigantic power of Niagara, there are miles and miles of available water power in Canada which in spite of the severe winter never freezes, as the lakes and rivers all constitute broken water. Already we have chronicled the utilisation of the St. Lawrence Falls and the Rideau Rapids. How shall we be affected if other waters are harnessed for electro-chemical and motive power purposes?

In British Columbia a water charter has recently been obtained, and will be turned to account for the generation of electric light, while in India, also, water fills the bill. At Simla, the cost of carriage from the coalfields makes coal unprofitable for working small lines in this part of India, while wood is becoming more expensive owing to the denudation of the once extensive forests. At the same time, every stream that comes down from the snows, and even local brooks that

have their origin in springs in the outer ranges, and which each railway in these parts has to cross with unpleasant frequency, represent a vast amount of wasted water power. In consequence, an electric railway is to be built, running through the tea district, the electricity being generated by turbines at Bilaspur, where cutting through a neck of land (round which the river now makes a detour of eight miles) will give a head of 300 ft., with the whole volume of the Sutlej River behind it. The power, therefore, is practically unlimited, and when converted into electricity is to be utilised partly on the Kangra Valley Railway, the North-Western, and partly on the Simla-Kalka Railway, the balance being taken on to Lahore and Simla for electric lighting and other purposes.

After the success at Foyers, can we not find other sources of water power with which to wisely do likewise?

ELECTRIC POWER AT NIAGARA.

IN a letter to the *Times* this week, Prof. Geo. Forbes says:—It is four and a-half years since I was last at Niagara, and the first thing to strike one is the great number of enormous new factories which have been established on the company's land. Nearly every one of these consumes a very large amount of power, as is shown by the following statement, which any one can verify, showing the names of the factories and the amounts of power used in each:—

	h.p.
International Paper Company	7,200
Pittsburg Reduction Company (aluminium) ..	3,050
Carborundum Company	1,000
Buffalo and Niagara Falls Electric Light Company	500
Electro-Chemical Company (peroxide of sodium) ..	400
Buffalo and Niagara Falls Electric Railway ..	200
Niagara Falls and Suspension Bridge Railway ..	250
Buffalo and Lockport Electric Railway	350
Oldbury Electro-Chemical Company	1,000
Mathieson Alkali Works	2,000
Cataract Power and Conduit Company (Buffalo) ..	8,000
Tonawanda Power Company	500
Union Carbide (of Calcium) Company	10,000
Surface Coating Company (enamelling)	20
Niagara Development Co. (workmen's dwellings) ..	75
Niagara Water Works	45
Total	34,590

To these, additions are to be made in October, and two new works, the Atchison Graphite Company and the Lead Reduction Company (Litharge), will be supplied, bringing the total up to 45,190 h.p. contracted for, bringing in an income of over £150,000. The operating expenses do not exceed £25,000. per annum.

This is a most interesting result in three ways—(1) It shows that the original promotors were right in believing that the locality, with cheap railway transport, was favourable; (2) it shows that the general plan of the works, by which any customer could have any kind of electric current he desired, has been appreciated; and (3) it gives an indication of the enormous strides which have been taken of late years in electro-chemical and metallurgical processes.

Regarding the machinery, the dynamos, which were totally new, not only in size but in their general design, never give the slightest trouble; and the transformers, ranging up to 2,500 h.p., have answered their purpose perfectly, even with the low frequency of alternations, which was generally condemned by theorists when I introduced it, but which is recognised now by every one at Niagara as contributing largely to the success of the scheme. The rotary transformers, for converting alternating into continuous current, which are used for nearly half of the power, gave some trouble at first, being the first which had ever been commercially used. But the difficulties have been successfully met. A good deal of the other machinery was of a new character and bold in design, but has generally worked well. The setting-up and working of the transmission line to Buffalo reminds one of the earlier electric light stations in the United States, but this is bound to be one of the most important applications in the future

The general conclusion arrived at, after thoroughly inspecting everything under the best auspices, is that the boldness of the originators of the scheme has been justified, and that the wants of manufacturers who require power in any form can be supplied. It must be remembered, however, that much depended upon the favourable locality, and this warning may be given, that it would be rash to develop a large water power in this way without demands for power. At the inception of all these schemes there is one thing more important than overcoming the engineering difficulties, and it consists in ensuring the support of those who require large quantities of power, electrical or mechanical.

WIRELESS TELEGRAPHY.

IN the course of an interview with Signor Marconi recently, a press representative obtained some information with reference to the arrangements for the wireless telegraphy demonstrations at the forthcoming meeting at Dover of the British Association. The head-quarters of the British Association will be at the Town-hall, and it is here that the French and English scientific visitors are to have the opportunity of witnessing some wireless telegraphy experiments Signor Marconi has just returned from the naval manœuvres, and he will leave for America at the beginning of September. Before he goes he is anxious to superintend all the necessary arrangements for his demonstrations at the meeting of the British Association. During the meeting these demonstrations will be left in charge of Professor Fleming, of University College, London. Messages of congratulation will probably be exchanged between Dover and different parts of Europe. Signor Marconi said that the trials between Dover Town-hall and the light-house at St. Margaret's had been a complete success, the tests applied yielding the most satisfactory results. Asked as to whether an attempt would be made to send messages direct between Dover Town-hall and Boulogne, Signor Marconi said this would depend upon circumstances. The installation at Wimereux, near Boulogne, is the property of the French Government. It was possible to send direct communications, but certain alterations on the French side of the Channel would be necessary. As the French Society for the Advancement of Science would be holding their annual conference at Boulogne at the same time as the British Association at Dover, and as both societies would be co-operating together and exchanging courtesies, he thought there should be no difficulty in obtaining the necessary consent of the French Government Otherwise messages will be sent across the Channel between Dover and Boulogne *via* the South Foreland. Signor Marconi referred to the demonstrations with wireless telegraphy made during the recent naval manœuvres. The results of these demonstrations, he stated, had established the fact that, even with the present installation at the South Foreland lighthouse, messages could be exchanged with a fleet as far down Channel as Cherbourg, a distance of about 100 miles, and even further.

FATAL EXPLOSION AT A RUBBER WORKS.

HOME OFFICE RULES AT FAULT.

DR. HOUCHIN resumed his inquiry at the London Hospital, on Tuesday, into the death of James Frederick Pugh, aged 20 years, a "carer," lately employed at Messrs. Birnbaum and Sons' india-rubber works, Old Ford, who was killed owing to an explosion which occurred on the premises on the 4th inst.

Allan Cole, a "curer" in the same employ, stated that he was working with Pugh "curing" india-rubber at a stove on the day in question when the belt came off the pulley. The fan which drove away the explosive fumes stopped, with the result that an explosion occurred and witness was blown out of the room. Bi-sulphide of carbon and chloride of sulphur were used in the curing Witness had met with a previous accident, but on that occasion his clothing only got burned.—The Coroner: Have you ever had a fire before?—Witness: Oh, yes, fires are of frequent occurrence; we think nothing of them While the fan was in motion there was no danger, but immediately it stopped an explosion was almost certain, as there was no time to do anything. In the old "cure" machine there were frequently fires, which were always easily extinguished with wet blankets and sand.

Mr. Henry Birnbaum, managing director Messrs. Birnbaum and Sons, stated that he was strongly of opinion that with the old system there was no danger of explosion, and if the work was carried on in a well-ventilated shop there was very little danger to health. With the fan system, however, which was now enforced under the new rules issued by the Home Office, there was the danger of explosion.—By Mr. Seal: The fact that under the old system, which had been in vogue in the works for twelve years, there had been no explosion showed, in witness's opinion, that that was the best. As a matter of fact, witness wrote to Mr. Seal pointing out that to resume working under the conditions in existence at the time of the explosion was to render themselves liable to a similar experience. Witness also argued that the requirements of the Act had created a danger which did not exist under the old working rules.

The jury, after a long deliberation, returned a verdict of accidental death, and added that an air-shaft should be provided at the top of the building, so as to make it impossible for an explosive mixture to be formed, and that flanges should be placed on all wheels to prevent the belt slipping off.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Improvements Connected with Filter-Presses. C. Vogelsang. 16,093. August 8.

Rendering Wood Non-Flammable. S. Couper-Coles. 16,098. August 8.

Tin from Tin Scrap. T. Twynam. 16,108. August 8.

Metallic Carbides. H. L. Hartenstein. 16,128. August 8.

Electrical Resistances and Heating Bodies Composed of Metallic Oxides. V. I. Feeny. 16,140. August 8.

Production of Gas for Illuminating and other Purposes. F. Schwander. 16,147 August 8.

A New Diamidonaphthol and Salts of Same. R. B. Ransford. August 8.

Improvements in Coke Ovens. E. N. Coppee. 16,154. August 8.

Treatment of Sewage and the Like. F. Dawes. 16,211. August 9.

Distillery and Apparatus therefor. E. Barbet. 16,233. August 9.

Manufacture of White Lead and Apparatus therefor. H. J. Anderson. 16,286. August 10.

Product from Formaldehyde and Phenol. C. Goldschmidt. 16,296. August 10.

Apparatus for Heating or Cooling Liquids, Air, or Gases. W. Witkowitch. 16,381. August 11.

Process for Carbonising and Deoxydising Molten Metal. C. D. Abel. 16,445. August 12.

Improved Anti-Fouling Composition. O. Comuzzi. 16,445. August 12.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Manufacture of Sulphuric Anhydride. J. Y. Johnson, 47, Lincoln's Inn Fields, London (communicated by the Badische Anilin and Soda Fabrik, Ludwigshafen-on-Rhine, Germany). Eng. Pat. 15,947. July 21, 1898.

The process adopted is that of generating and purifying sulphur dioxide, and converting it into sulphuric anhydride by passing it over platinised asbestos, together with oxygen. The novelty of the patent lies in the details of the process, as described, which have reference to three essential points: (1) the purification of the re-actionary gases, (2) the regulation of the temperature and conditions of the combination process, (3) the packing of the tubes containing the contact mass. These particulars are given collectively in this specification, and are illustrated with thirteen figures, but as they are described severally in the sub-joined patents, we will deal with them in turn. It is claimed that acid below and up to 106° Tw. can be produced as cheaply as by the chamber process, while stronger acids can be produced more cheaply.

Improvements in the Manufacture of Sulphuric Anhydride. J. Y. Johnson, 47, Lincoln's Inn Fields, London (communicated by the Badische Anilin and Soda Fabrik, Ludwigshafen-on-Rhine). Eng. Pat. 15,948 July 21, 1898.

In this patent the purification of the sulphurous gas is effected. To achieve this steam is introduced through a steam jet as the gases come from the pyrites or sulphur burners, and the gases are then cooled to about 100°C., and washed so as to remove the numerous impurities (including a mist of sulphuric acid vapour) which if allowed to pass forward rapidly impair the contact mass. One advantage of the introduction of steam is that it prevents the formation of solid crusts in the coolers, and it also effects a thorough mixing of the gases. The purified gases on leaving the washers must satisfy two tests before passing to the contact apparatus. These tests are described in full, and comprise an optical test showing freedom from dust and mist, and a chemical test for arsenic, phosphorus and mercury, or their compounds

Improvements in and Apparatus for the Manufacture of Sulphuric Anhydride. J. Y. Johnson, 47, Lincoln's Inn Fields, London (communicated by the Badische Anilin and Soda Fabrik, Ludwigshafen-on-Rhine). Eng. Pat 15,949. July 21, 1898.

The regulation of the re-action in the contact tubes is mainly described in this specification. Much heat is evolved when sulphur dioxide combines with oxygen, and if the temperature is allowed to exceed certain limits, owing to the heat given out in the re-action, the production of the anhydride is hindered in many ways. It is particularly injurious for the mixture of gases containing the sulphuric anhydride to leave the contact mass at its highest temperature. An apparatus is therefore described in which the contact tubes are jacketted and the temperature controlled by currents of air, or the re-action gases themselves. There are nine figures. In working, the re-action tubes containing the contact mass are heated to about 300° C. The gases are then allowed to enter, and the heat of the re-action brings the temperature of the entering gases to about 380° C, while those leaving register about 234° C. This state is maintained by regulating valves The precise temperature most suitable to the particular gases being treated, is ascertained by testing the exit gases, and the temperatures are regulated accordingly.

Improvements in the Manufacture of Sulphuric Anhydride and Apparatus for Use therein. J. Y. Johnson, 47, Lincoln's Inn Fields, London (communicated by the Badische Anilin and Soda Fabrik, Ludwigshafen-on-Rhine). Eng. Pat. 15,950. July 21, 1898.

In packing and working the contact tubes, the patentees refute the belief that the reaction goes on better under pressure, and adopt a method of working at atmospheric pressure only. The contact mass is placed in thin layers on perforated trays, or sieves built up one upon the other in the vertical reaction tubes, the trays being carried by short lengths of pipe, which regulate the space between each tray. The principle adopted is that the pressure on one layer of the contact mass must not be transmitted to the next layer. There are two figures.

Process and Apparatus for Producing Coke, Gas, and Bye-products P. Naef and R. S. Garton, both of 15, Third Avenue, New Brighton N.Y., U.S.A. Eng. Pat. 13,164 June 13, 1898.

Coke, fuel gas, and ammonia or other nitrogenous bye-products are obtained by passing hot gases downwards through the material to be coked. The coking chamber is vertical and somewhat like a straight sided blast furnace, there being the usual charging arrangements at the top, while the lower end contracts into a special form of discharging hopper. Some distance below the top a channel encircles the chamber and communicates by ducts or tuyeres with the interior By these ducts hot gases from an oil furnace are introduced. Lower down are inlets for steam and still lower for water to quench the coke. Just above the mouth of the bottom hopper the fuel gas is taken off and treated for the bye-products. Near the top of the coking chamber is an outlet for the illuminating gas which is generated in the upper portion of the chamber. There are two figures.

Process and Apparatus for Producing Coke, Gas, and Bye-products. P. Naef and R. S. Garton, both of 15, Third Avenue, New Brighton, N.Y., U.S.A. Eng. Pat. 13,165. June 13, 1898.

This is a modification of the foregoing patent, the top of the coking chamber being filled with a series of vertical pipes, in which the fuel is partially coked. The completion of the coking process is effected by psssing hot gases downwards through the material. The nitrogenous compounds in the coke are recovered by steam which is partially generated by the water used to cool the coke. There is one figure. The coke is screened and fed into trucks as it leaves the bottom of the coking chamber.

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for June, 1899. The total shipments were 87,214,749 gallons, compared with 93,109,931 gallons in 1898. The total for the 12 months ending June, 1899, were 937,565,259 gallons, against 1,022,210,379 gallons in the same period of 1898. The details of the shipments are as follows:—

			CRUDE PETROLEUM.	Gallons.
Total,	June,	1899	.....	10,018,249
,,	,,	1898	.....	11,118,975
			NAPHTHAS.	
Total,	June,	1899	.....	1,133,089
,,	,,	1898	.....	1,602,145
			ILLUMINATING.	
Total,	June	1899	.....	69,837,669
,,	,,	1898	.....	72,291,029
			LUBRICATING AND PARAFFIN.	
Total,	June,	1899	.....	5,327,572
,,	,,	1898	.....	5,881,316
			RESIDUUM.	
Total,	June,	1899	.....	898,170
,,	,,	1898	.....	2,216,456

Selected Correspondence.

THE MANCHESTER SEWAGE SCHEME.

To the Editor of the Manchester Guardian.

Sir,—Should the predictions of your correspondent "Experience" prove correct, and Manchester be called upon to treat its sewage chemically and put down 90 to 100 acres of bacteria beds, then the bacteriological treatment of sewage as far as Manchester is concerned is a dead letter. No one can conceive of any member of the City Council jeopardising his seat or forfeiting his claim to rank as a man of ordinary intelligence and common sense by countenancing the expenditure of £500,000 on what at the very best is only an experimental scheme. Where is there a place to-day working satisfactorily on the lines proposed by the Manchester experts? There is nothing to justify the expenditure of a single sixpence, and such evidence as there is gives no hope of a rational solution of the problem in this direction. I wish your correspondent had gone a little further and given us the benefit of his experience in actual working, and not confined his predictions to the probable requirements of the Local Government Board. Had he done so, I venture to say that he would have told us that 300 acres would eventually be required, and that the expenditure would be £1,500,000., with a yearly cost which, with our present knowledge of working, cannot be calculated. No one having a knowledge of sewage treatment and who followed the Local Government Board inquiry and adjourned inquiry last April, could fail to be impressed with the incompleteness and feebleness of the scheme. Omitting the confused ideas about storm water, &c., there were two very vague items in the scheme—the filter beds had to be composed of crushed clinker passing ¾in. but not ⅝in. Clinker is fused coal, not cinders or ashes, and the amount of clinker to be obtained from one ton of coal would not exceed one cwt.; the amount would be dependent upon the nature of the coal and mode of consumption. A cubic yard of crushed clinker would weigh about 20 cwt., so that in 100 acres of bacteria beds, 3ft. deep, we should have 484,000 tons, the product of 9,680,000 tons of coal. It would be interesting to know from those who advocate this scheme how they propose to obtain this quantity of clinker, and what it would cost. The other vague item is one affecting the working cost. The experts informed the Local Government Board that coarse-grained filter beds lost their holding capacity, because the sludge found its way to the bottom, thus lessening the cubical capacity. This is an undoubted indication that the proposed area was inadequate, but to overcome this the experts said that fine-grade filter beds maintained their holding capacity, because the mud was caught on the surface and could be scraped off. Will anyone venture to estimate the cost of this top scraping? Picture it, think of it—100 acres to be scraped over possibly two or three times a week if the settling in the tanks is not good! This alone makes the scheme an impracticable one.

Your correspondent "Experience" need not be afraid of "the thin end of the wedge" getting in with a preliminary canter on 20 acres. The effect of driving the wedge home would be so disastrous that nothing short of idiocy would prompt the striking of the first blow in the face of present experience. Mistakes are often made in ignorance, but no one at the present time can plead ignorance of the impractability of biological treatment in respect to sewage. "Forewarned is forearmed," and a little extra time for reflection on the probable decision of the Local Government Board, as predicted by your correspondent, increases the interest which awaits the decision of the City Council. If there is to be no bacteriological treatment, what next? Surely there is some rational way out of the difficulty. There are local scientific and practical men of high standing whose opinion would be worth having. Until that has been done there is no need to despair of obtaining a solution of the problem involving much less expenditure than this proposed bacteria scheme, and one in which finality plays a more important part.

Yours, &c.,
Anti-Bacteria.

To the Editor of the Manchester Guardian.

Sir,—My attention has been called to the letters of "Experience" and "Anti-Bacteria" in your issues of last week. The knowledge displayed by these two correspondents of what Manchester is doing is so very obscure and is so behind recent developments of sewage treatment that I venture to suggest that they should apply to the Chairman of the Rivers Committee for permission to view our sewage works. I shall be happy to show them round personally.—Yours, &c.,

H. Grimshaw.

Chemical Laboratory, Clayton, Manchester,
August 22nd, 1899.

PRESTWICK WATER SUPPLY.

(To the Editor of the Glasgow Herald.)

Sir,—In your issue of August 14th, a paragraph appeared on this subject and concluded by stating that the Ayr Town Council had agreed to give a supply by means of water-carts. Up till now we have seen none of the water-carts but have seen the water get daily worse, and being suspicious of its purity had a sample taken for analysis, and herewith enclose copy of analyst's report. I may state that the water supplied on the day after the sample was taken seemed much worse and even had a smell. The water is turned on three hours out of the twenty-four, viz., 7 till 9 morning and five till six evening.—I am, &c.,

A Visitor.

Copy.

156, Bath Street, Glasgow, August 18, 1899.

Report on sample of water received on the 16th inst. An analysis gave the following results:—

	Grains per Gallon
Mineral matter	22·25
Organic matter	·80
	23·05
Temporary hardness	13·60
Free ammonia	·058
Albuminoid ammonia	·022
Nitrates	None.

The above analysis shows that this water is contaminated to an appreciable extent with matter of the nature of sewage, and on this account is quite unfitted for drinking and dietetic purposes generally.

In addition, the water contained a considerable proportion of suspended matter, which rendered it muddy, and in the sample (about one pint) there were also bodies which had the appearance of what are known ordinarily as sand lice. Owing to the presence of this suspended matter alone, although there had been no sewage matter whatever, the water is certainly unfit for drinking without filtration.

(Signed) R. R. Tatlock & Thomson.

Institute of Chemistry Examinations.—The following are the names of candidates who passed the *Intermediate Examination*:—Coomber, Albert Walter, Finsbury Technical College, London; Cooper, John, B.Sc. (Durham), Durham College of Science, Newcastle-on-Tyne; Eynon, Lewis, Finsbury Technical College, London; Eyre, William, University College, Sheffield; Fotheringham, John, Glasgow and West of Scotland Technical College; Fyffe, William Alexander, University College, Dundee; Hall, Harold, University College, Nottingham; Jollyman, Walter Henry, Finsbury Technical College, London; Levy, Arthur Garfield, Finsbury Technical College, London; Lloyd, John Alexander, Mason University College, Birmingham; Melling, Samuel Ernest, Owens College, Manchester, and under A. H. Allen, Esq., F.I.C.; Orme, Walter George, Mason University College, Birmingham; Silverston, Cyril John, B.Sc. (Lond.), Mason University College, Birmingham; Taylor, William Henry, Finsbury Technical College, London; Theobalds, Vincent William, Finsbury Technical College, London; Wall, Henry Lucas, Finsbury Technical College and University College, London. *Practical Examination* for the Associateship.—Auchinachie, Peter, under Cecil H. Cribb, Esq., F.I.C; Clark, William Bone, Glasgow and West of Scotland Technical College, and under J. Hornby, Esq., F.I.C.; Darling, Charles Robert, Royal College of Science, Dublin; Doresa, Reginald Nestor Stavro, Merchant Venturers' Technical College, Bristol, and under Dr. E. H. Cook, F.I.C.; Goulding, Ernest, B.Sc. (Lond.), Registered Student under Professor W. R. Dunstan, M.A., F.R.S., F.I.C.; Kerr, James, B.Sc. (Edin.), Registered Student under Dr. Stevenson Macadam, F.I.C. *Final Examination for the Associateship*, in Branch "A" (Mineral Chemistry).—Denham, William Smith, Glasgow and West of Scotland Technical College; Nind, Ernest Robert, A.C.G.I., City and Guilds of London Central Institution; Rhodin, John Gustaf Adolf, University of Upsala, Sweden, and under J. Wilson Swan, Esq., F.R.S., F.I.C.; Smith, James Hart, Assoc. R.C.Sc. (Lond.), Royal College of Science, London. In Branch "B" (Metallurgical Chemistry).—de Castro, John Paul, B.A. (Cantab.), Cambridge University, and under Sir William Roberts-Austen, K.C.B., F.R.S.; Collis, Walter Thomas, Mason University College, Birmingham. In Branch "D" (Organic Chemistry). — Abell, Robert Duncombe, University College of North Wales, Bangor; Cates, William Arthur, Finsbury Technical College, London; Jenks, Robert Leonard, A.C.G.I., City and Guilds of London Central Institution. The Examiners were:—Bernard Dyer, Esq., D.Sc., F.I.C.; Professor Percy F. Frankland, F.R.S., F.I.C.; Thomas Stevenson, Esq., M.D., F.R.C.P.

THE USE OF LEAD AND ZINC PAINTS.

IN a contribution to the "Railroad Gazette," G. R. Henderson, of the Norfolk and Western Railroad, gives the results of a series of exposure tests to determine the efficiency of lead and zinc paints. For the different materials he reaches the following results:

Tin.—The best results were obtained with first coat white lead and second coat white zinc. The second coating of zinc gave generally the best results, and the second coating of lead the worst.

Galvanized Iron.—The same remarks apply to galvanized iron that were given for tin.

Sheet Iron.—The mixture of one-third white zinc and two-thirds white lead, for both coats, gave the best results on this material, and in general the zinc paint gave better results than the lead paints.

Poplar.—The second coats of zinc showed up well on poplar, no matter whether the priming coats were white lead or white zinc, or mixed lead and zinc. The lead second coating showed up the worst on this material, but in each case where the second coat was of zinc, totally or partially, the paint was in a perfect condition.

White Pine.—The remarks made relating to poplar apply to white pine also.

Yellow Pine.—This material seems to be difficult to properly treat with paints; the best results were obtained with the first coat of lead, and the second coat of lead and zinc mixed. Where the first coat was of lead and zinc mixed, or entirely of zinc, the results were poor throughout, which seems to indicate that as a general thing the lead is better for priming on this material.

Conclusion.—The lead priming and zinc coating are generally good for tin, galvanized iron, poplar and white pine. Sheet iron showed up best with both coats of mixed paints. Yellow pine appeared best with the first coat of lead and the second coat of lead and zinc mixed. Comparing the materials painted, we find that generally poplar retains the paint better than white pine, and would, therefore, be preferred for siding on buildings, etc. Yellow pine seems to be the worst of all for this purpose. Black iron, as a whole, seems to retain the paint better than either tin or galvanized iron.

PETROLEUM OUTPUT OF THE WORLD.

RUSSIA v. U.S.A. IN CRUDE OIL OUTPUT.

SO many oil companies have been successfully floated in London during the past year or two that there must be many thousands of investors who take a close interest in all that appertains to the industry. The *Philadelphian Manufacturer* states that over 5,000,000,000 gallons of petroleum are now produced annually in the world. Of this amount 2,500,000,000 gallons are produced in the United States, 2,250,000,000 gallons in Russia, and the remainder is distributed among a dozen countries, Austria producing 87,000,000 gallons, Sumatra 72,000,000, Java 30,000,000, Canada 29,000,000, Roumania 24,000,000, India 15,000,000, Japan 8,000,000, Germany 7,000,000, Peru 3,000,000, and Italy about 1,000,000 gallons.

While the United States and Russia furnish the bulk of the world's petroleum, and stand almost abreast in quantity of crude oil produced, the amount of refined and illuminating oil supplied by the United States far exceeds that furnished by Russia. Sumatra, next to Russia, is the most formidable competitor of the United States, because of the rapid growth in its production of oil, the fact that its crude oils produce half their quantity in refined illuminating oil, and the further fact that they are much nearer to the Orient, the countries of which form an important part of the world's markets for this class of exportations. Up to the present time, however, the quantity of oil produced in Sumatra is small compared with that of the United States or Russia, its figures for 1897 being but 72,258,000 gallons, against 2,543,000,000 gallons for the United States.

The United Kingdom is the largest consumer of mineral oils exported by the United States, the total imported to this country in the last fiscal year being 212,265,563 gallons, against 155,203,222 gallons to Germany, 53,398,115 to Japan, 44,523,552 to China, 20,561,084 to Brazil, 20,495,398 to British Australasia, 12,835,631 to France; and 260,431,316 gallons to other European countries. The total exportation of refined illuminating oil from the United States in the fiscal year 1898 was 900,998,875 gallons, while Russia's exportation of refined mineral oils amounted to less than one-third this quantity.

PETROLEUM ACCIDENT.—A serious accident befell Mary Hallmark, living at 7, Duke Street, South Shore, Blackpool, on Sunday evening. She was turning down a paraffin lamp when it suddenly burst, and the lighted paraffin was scattered all over her face, chest, and arms, whilst her clothes caught fire. Her screams attracted the neighbours, and she was attended to and conveyed to the hospital, where she lies in a dangerous condition.

CARRIAGE OF LIQUID AMMONIA ON BOARD SHIP.

THE Board of Trade issues the following instructions to Surveyors:—The Board of Trade are advised that ammonia gas compressed into liquid form should be classed with dangerous goods, not only on account of the danger of explosion involved when it is contained in vessels not sufficiently strong to withstand the pressure which may be produced by a rise in temperature, but also on account of the highly dangerous nature of the gas. The following precautions should be adopted when this liquid is carried as cargo on board ship:—It should only be packed in iron vessels which have been carefully tested up to a pressure of 675 lbs. per square inch, and should be stored in a part of the ship beyond the influence of any heat from boilers or furnaces, and remote from the living quarters. The aqueous solution of ammonia of a specific gravity of ·880 at 60 degs. F. should be conveyed in drums of about 12 gallons capacity, with an empty space equal to 5·33 per cent. left in each drum. If for carriage on board ship the drums should be capable of withstanding a pressure of 66 lbs. per square inch, and should be packed in cases with not more than four drums in a case, the interstices being filled with sawdust. But for short voyages, such as to Ireland or the Continent, the drums need not be packed in cases. At a temperature above 130 degs. F. the expansion of liquid ammonia is rapid and a risk of explosion much increased. Care should therefore be taken not to expose drums containing this liquid to the rays of the sun or to the influence of heat from boilers. It should be carried well away from the living quarters as deck cargo only, and should not be covered with black tarpaulin. Ammonia solution of a specific gravity of ·959 and upwards is exempted from the operation of the above instructions.

IMPORTS AND EXPORTS FOR JULY.

THE Board of Trade returns for last month are satisfactory. The *imports* do not call for special remark as regards chemicals. The *exports* of alkali were a trifle larger in value, but less in quantity.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE.

Articles.	Quantities. 1898.	1899.
Margarine ..... Cwt.	62,207	64,331
Copper Ore and Regulus..... Tons	18,129	20,911
Pyrites..... ,,	64,677	67,504
Tin ..... Cwt.	28,829	43,373
Alkali ..... ,,	23,268	27,496
Brimstone ..... ,,	24,340	35,786
Dyes, coal tar ..... £.	65,221	61,521
Saltpetre ..... Cwt.	19,755	14,032
Petroleum ..... Gall.	12,538,203	23,334,592
Turpentine ..... Cwt.	42,463	63,099
Guano ..... Tons.	1,295	1,367
Nitrate of Soda ..... ,,	8,842	7,994
Paraffin Wax..... Cwt.	58,803	61,070
Rosin ..... ,,	194,623	131,804
Tallow and Stearine..... ,,	220,524	184,836
Tar..... Barrels	12,514	14,924
Oil Seed Cake ..... Tons	28,151	33,224
Wood Pulp..... ,,	36,430	47,404
Borax ..... Cwt.	4,645	6,059

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

Articles.	Quantities. 1898.	1899.
Alkali ..... Cwt.	282,400	269,989
Cement ..... Tons.	30,053	37,074
Coal and Coke ..... ,,	2,953,336	3,993,942
Copper, all kinds ..... Cwt.	85,325	61,637
Iron and Steel ..... Tons.	281,194	370,014
Chemical Manures ..... ,,	48,758	35,939
Oils, seed ..... ,,	3,064	2,614
Salt..... ,,	75,125	55,695

FIRE AT A DYEWORKS.—A destructive fire occurred on Sunday at White Park Dyeing and Finishing Works, the finest in Ireland, and the property of Mr. R. P. Carse, Manchester, situated at Ballyclare, nine miles from Belfast. The boiler house, cloth boiling house, wash house, padding and dyeing rooms, including a large quantity of valuable machinery, were destroyed. About 120 employees have been temporarily thrown idle. The damage, which is partly covered by insurance, amounts to about £15,000.

PITCH IS A SOLID.

A RIDDLE something like, "When is a liquid not a liquid?" recently came before the courts in Trinidad. The judge had to decide as to whether pitch is a solid or a liquid.

The stratum of pitch in Trinidad is usually from 4 ft. to 7 ft. below the surface, and, when cut through, the pitch melts and oozes out. So if a man dig down near his neighbour's lot, he is able to collect pitch coming from under his neighbour's land. This was described by one of the witnesses as "the plan adopted when you want to dig your neighbour's pitch." It "bulges out," he explained, "and you shave it off each morning."

The suit was brought by an outraged neighbour whose pitch had thus been shaved off in adjoining land. The defence was that an underground stratum of pitch was like so much water, no man's property till appropriated. But the court held that pitch was a material, and that one had no more right to abstract it from a neighbour, by the oozing process, than one would have to tap his deposit of iron or silver.

Trade Notes.

CLERKS AS FURNACE MEN.—A number of clerks employed at the Llanelly Copper Works are having a peculiar experience just now. Owing to a strike of furnacemen, the proprietors, in order to keep the works going, and thus complete important contracts, have succeeded in enlisting the services of a section of the clerical staff to work one furnace. The experiment has turned out a success, and the clerks will continue in the mills department until the strike is settled.

PERSONAL.—The Council of the Durham College of Science, Newcastle-on-Tyne, have unanimously appointed *Mr. Thomas Hudson Middleton, B Sc.*, Edinburgh and Glasgow., professor of agriculture in succession to Dr. W. Somerville, who was recently elected to the chair at Cambridge University. The agricultural department at the Newcastle College receives a subsidy of £800. a year from the Board of Agriculture, and £500. a year from each of the County Councils of Durham and Northumberland. It is also intimately associated with the demonstration farm carried on by the latter county.

THE DISPOSAL OF SEWAGE IN INDIA.—An experiment has just been brought to a successful conclusion in the Presidency Gaol, Calcutta, which is likely to have an important bearing on the future sanitation of India. It has been to try the efficacy of the new septic system for the disposal of sewage, which has been very favourably reported upon at home. The septic pit is uncommonly like the old unwholesome cess-pit. It is managed, however, on scientific principles, and therein lies all the difference. Exact statistics of cost and requisite dimensions have yet to be worked out, but in the event of these proving as low as is expected a future of great utility awaits the system. In the case of Calcutta, for example, it would be easy to adapt it to the insanitary slums in the north, where the sewers have never completely penetrated.

SALAMANDER BOILER COVERING.—The four Lancashire boilers at the Midland Railway Company's new electric lighting station, Kentish Town, are entirely enclosed and covered over with plates which rest on iron girders. These plates and all the piping, including the exhaust pipes, are covered with the United Asbestos Company's "Salamander" non-conducting composition, which sets hard, is very durable, and can be walked upon without injury. Access to the boilers for examination or repairs is had through manholes in the front, but the plates with which they are covered can be entirely removed and replaced with ease. This arrangement is at once simple and effective, and although the working pressure is from 160 to 170 lbs., the temperature of the boiler house is pleasant, and the boilers can be walked over without the slightest discomfort.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are quietly steady at 8d for 90's and 10d. to 10½d. for 50/90's. Carbolic acids are steady without change in prices Naphthas are strong, but there is no quotable alteration in values Anthracene is in better request, notably 30% B., which is quoted 2½d. to 3d., while for 30% A 4d. is nearest value. Pitch firm at 34s. 6d. f.o.b. East Coast and 31s. West.

Sulphate of ammonia is firm, but the demand is easier. Makers are offering very little. For forward the inquiry is brisk, but prices seem above buyers' ideas. Prompt figures for London outside makes are £12. 7s. 6d. to £12. 10s., Hull £12. 5s., and Leith £12. 7s. 6d. to £12. 8s. 9d.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali market trade continues brisk and the demand is especially good for export. A considerable amount of business has been done in caustic sodas at the advanced rates; quotations remain as last week, viz, f.o.b. Liverpool, 77%, £9. 5s. per ton; 70%, £8. per ton; and 60%, £7. per ton. Alkali, 58%, is unchanged in price at £3. 17s. 6d. per ton, bags, free on rails, and business done over next year thereat. Bleaching powder is in continued good request, and price f.o.b. in hardwoods is firm at £5. per ton, with advancing tendency. Chlorates are quiet and prices unchanged; soda at 3¾d, and potash at 3½d. per lb. For sulphate of copper the demand is less active and price drooping; prompt delivery, £23. 10s. to £23. 15s. per ton, and forward offering at lower rates. For potash, caustic and carbonate, there is good demand and supplies are scarce at advancing prices. White powdered arsenic is steady at £18. 10s. to £18 15s per ton. Yellow prussiates of potash and soda are firm at 7⅝d. and 5⅝d. per lb. Cyanide is strong at 1s. 0½d. per lb. Sulphocyanides are in only moderate request. Borax continues steady in price though ample stocks are on hand. For green copperas there is a good general inquiry. Brown acetate of lime (American) firm at £4. 17s. 6d. c.i.f. Acetate of soda dearer at £13. 5s. per ton, c.i f. White sugar of lead selling more freely at the low prices. Carbolic acids are firm.

REPORT ON MANURE MATERIAL.

The market all round has been quiet throughout the week, but prices remain generally steady.

Quotations for phosphate rock are unchanged, but raisers being well sold ahead are in no hurry to transact further business, and nothing of importance has transpired.

East India bone meal is a shade easier, there being sellers of fine quality for shipment at £5. 2s. 6d. per ton, ex quay Liverpool.

Nitrate of soda is firm at 7s. 9d. to 8s. per cwt. for good to fine quality on spot.

THE METAL MARKETS

LONDON, WEDNESDAY.—Pig iron, firm: Scotch Warrants closed at 68s. 6d., Middlesbrough, 65s. 3d., cash, and hematite, 72s. 2½d. Copper quiet: Chili bars, G.O.B.'s and G.M.B.'s, closed at £76. 0s. 0d. to £76. 5s. 0d., cash; and £76. 6s 3d. to £76. 11s. 3d. three months. Tin, easier: Straits closed at £142. 10s. 0d. to £143 0s. 0d. cash, and £143 7s. 6d. to £143. 17s. 6d. three months; Australian, £143; English ingots, £146. Lead, steady: Spanish, £14. 17s. 6d. to £14. 18s. 9d.; English, £15 Silesian spelter, ordinary, £23. 10s. to £23 15s. Nickel, 1s 2½d. Antimony, £39. 15s. Quicksilver: first hands, nominal; second hands, £8. 10s. *Copper Shares* steady: Cape, 4 1/16 to 4 1/8; Copiapo, 3 11/16 to 3 13/16; Libiola, 1¾ to 2; Mason & Barry, 3⅝ to 3⅞; Rio Tinto, 44⅜ to 44½; Tharsis, 7⅞ to 8⅛.

GLASGOW, WEDNESDAY.—Market easier, and a fair business. Scotch done at 68s. 7d., 68s 5d., 68s. 7d., 68s. 6d. and 68s. 6½d. cash; also at 68s 11d., and 68s. 9½d month; buyers, 68s. 6¼d. cash; sellers, 68s 7d. Cleveland done at 65s. 3d. cash, and 65s. 9d month; buyers, 65s. 3d. cash; sellers, 65s. 4d. Cumberland hematite done at 72s. 6d. and 72s. 7d. month; buyers, 72s. 2½d. cash; sellers, 72s. 3d.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

Palm oil is very firm and sellers are slow to offer. Accra is quoted £22. 15s. Olive is well held. Levant figures at £32. 10s. to £33. per ton, and is in good demand at that. Linseed is dearer and firm at the advance Liverpool makes in export casks, being worth 22s. 3d. to 23s. per cwt. Cotton seed is firm without change in values, Liverpool refined being quoted 18s. to 18s. 6d. per cwt. Castor oil is steady on spot with a fair business doing, good seconds Calcutta are quoted 2 15/16d., and first pressure French 2¾d. per lb. Tallow is very firm and in satisfactory demand. Resin is steady and fine is well held. Spirits of turpentine are steady at 36s. 6d. per cwt. on spot, there being sellers at this price. Petroleum is in moderate demand at 6½d. to 7⅜d. for American and 5⅞d. to 6¼d per gallon for Russian refined.

CAKES.—The tone of the market for American Western linsee continues firm, and a further advance of about 2s. 6d. is quoted fo

spot parcels in sympathy with the higher rates quoted from America, the closing value being £6. 12s. 6d. to £6. 15s., with a moderate business doing Bombay continue without material alteration to notice at £6. 15s. to £7. per ton, but there is not much business passing thereat. For other imported descriptions values remain quite nominal owing to the absence of supplies for the time being. Liverpool makes are steadily held for £7. 2s. 6d. to £8. per ton, according to brand, and a moderately fair inquiry is experienced from consumers thereat. A firmer tone again prevails in the market for good to choice brands of decorticated American cottonseed, and a good demand is experienced, sellers asking £5. 12s. 6d. to £6. 2s. 6d., according to quality, whilst Liverpool makes are without noticeable alteration at £6. 2s. 6d. to £6. 15s. per ton, according to brand, with fair sales making thereat. Undecorticated Liverpool makes have a steady market, with a moderate consumptive inquiry going on at £4. 17s. 6d. to £5. 7s. 6d., according to brand, and spot parcels of Egyptian continue to be firmly held for £4. 15s. per ton in store, but sellers experience only a moderate amount of inquiry thereat.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 91s, seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J C, 65s. Umber: 40s. to 45s. White lead: £16 Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s 9d.; black, 9s.; blue, 6s. Oxide of iron: Common, £7.; medium, £10.; finest, £20.; Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—The market for cottonseed oil remains steady, but linseed oil continues to increase in value. The exports to date have been:—Linseed, 320,943 qrs. against 233,616 qrs. a year ago; rapeseed, 73,792 qrs. against 52,586 qrs; cottonseed, 95,330 tons against 121,147 tons; oilcake, 12,915 tons against 8,803 tons; olive oil, 2,700 tuns against 4,148 tuns; tar, 6,258 brls. against 1,014 brls. Linseed oil is about 10s. per ton dearer, and firm thereat, being quoted 21s. per cwt. spot, naked; 20s. 10½d. month; 19s. 6d. September/December; 19s. January/April; boiled and refined, £1. to £1. 10s. per ton extra. The exports for the week have been: 2 tons Denmark, 14 tons Norway; total, 16 tons. Refined cotton oil, 16s. 3d spot and month, naked; 16s. 1½d. September/October; 14s. 4½d. November/April; crude ditto, 15s. 1½d. spot; barrels, £1. 10s., and ordinary casks, £1. per ton extra. The exports for the week have been:—2 tons Belgium, 10 tons Denmark, 32 tons Germany, 20 tons Holland, 1 ton Norway, 22 tons Sweden; total, 87 tons. Castor oil, extracted, from 28s. per cwt. in barrels for cold drawn to 24s. 3d. per cwt. for second pressure in barrels. Cod oil, £16. to £18. per ton in barrels. Olive oil from £32. per ton for Malaga. Olive oil soap from £15. 10s. per ton, to arrive, ex quay. Turpentine remains about 38s. per cwt. Resins steady. Arachide nut oil, 25s. in barrels. Oleines unchanged from £18. to £21. per ton.

CAKES.—Feeding stuffs continue to hold a strong position. Linseed cakes firm, 95% pure, £7. 7s. 6d. to £7. 12s. 6d. Oil cakes (linseed), £6. 7s. 6d. to £6. 12s. 6d.; Russians, £7. to £7. 5s.; Americans, none. Cotton cakes, steady; best makes, £5. 7s. 6d. to £5. 12s. 6d.; seconds, £5. to £5. 5s.; decorticated, none. Rape cakes: Black Sea, £4. 7s. 6d. to £4. 12s. 6d.

PAINTS.—Makers continue steadily engaged, but many of the prices realised can hardly be described as "highly remunerative," except under conditions best described as financing the consumer.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

Since the agreement come to by the Scotch makers of burning oil (mineral), a fair show of forward contracting has been done in anticipation of the new season, which is gradually coming within sight. The enhanced values have of course been maintained. The other products of the mineral oil manufacture are all fairly strong on the market at the satisfactory prices last quoted. Sulphate of ammonia barely retains the full firmness of the beginning of last week, and the quotation is now £12. 7s. 6d. to £12. 10s. prompt, f.o b. Leith, with a report that the lower figure has been taken in one instance, at least. Forward dealing is spoken of, but there are no recent transactions known to be carried through. In ordinary chemicals, the feature is the scarcity of caustic soda and the rise in the price of the article, a rise which is not unlikely to go higher. The others are on a fair market at former figures.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s. basis nett, Tyne; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £8. 15s., 70/72° £8. 60/62° £7., and cream 60/62° £6. 10s., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 15s. nett, Tyne; saltcake, 23s to 24s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 9d.; sulphate of ammonia, £12. 7s. 6d. to £12. 10s. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £24., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb.; paraffin spirit (naphtha), 10d. to 10½d. per gal.; paraffin oil (burning), No. 1, 6¾d.; and crystal, 7d. nett, at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865° £5. to £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue steady, with a quiet business doing. Caustic, 76/77%, is £9. and 70%, £8. per ton. Soda crystals £2. 12s. 6d per ton, gross weight, locally Sulphur scarce at £4. 15s. per ton, f.o.b. Bleaching powder, softs, £5. 10s. per ton, nett; do., hards, £5. 15s. per ton, nett; caustic soda: 76/77% £9., and 70% £8. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. 0d. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. 0d. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—Unchanged at 9s. 6d. per ton, f.o.b. Tees. Market steady.

COALS.—The market continues firm, though there is perhaps a shade less demand. Coke is still in good request and prices are on a basis of 25s. and 26s. per ton, f.o.b. To-days quotations are: best Northumbrian steam, 13s. and 13s. 6d. per ton; second qualities, 12s. and 12s. 6d. per ton; small steam, 6s. 6d. and 7s. per ton; bunker coals, 10s. 3d. and 10s. 6d. per ton; coke, 25s. and 26s. per ton.

New Companies.

Santoline Manufacturing Co., Ltd.—CAPITAL £3,000. in £1. shares. This company has been formed to manufacture and deal in disinfectants, chemicals and apparatus connected therewith. Registered without articles of association. Registered office, 4, Savage Gardens, E.C.

Coke, Clay and Chalk Synd., Ltd.—CAPITAL £5,000. in £1. shares. This company has been formed to carry on the business of coke makers, chemical manufacturers, chalk quarrymen, clay diggers, etc., and to adopt an agreement with W. F. M. Williams. Registered without articles of association. Registered office, 20, Gt. St. Helens, E.C.

Smoke Consumer, Ltd.—CAPITAL £1,500. in £1. shares. This company has been formed to acquire and turn to account certain existing inventions relating to improvements in appliances for the prevention of smoke in furnaces, of steam boilers and the like. The number of directors is not to be less than 2 nor more than 5. The first are W. Farrer, J. Farrer, J. Hardy, E. A. Green, and W. E. Green. Registered by Jordan & Sons, Ltd., 120, Chancery-lane, W.C. Registered office, 107, Edmund-street, Sheffield.

Abelheira Paper Mills, Ltd.—CAPITAL £50,000. in £10. shares. This company has been formed to carry on the business of manufacturers of paper of all descriptions. The subscribers to the memorandum of association are:—J. H. Graham, 55, Cathedral-street, Glasgow, merchant; D. Graham, 55, Cathedral-street, Glasgow, merchant; F. Graham, 55, Cathedral-street, Glasgow, merchant; J. McInnes, 55, Cathedral-street, Glasgow, merchant; A. MacMillan, 55, Cathedral-street, Glasgow, merchant; J. Highgate, 55, Cathedral-street, Glasgow, mercantile clerk; J. D. Graham, 55, Cathedral-st., Glasgow.

Esperanza Nitrate Co., Ltd.—CAPITAL £21,000. in £1. shares. This company has been formed to acquire the business of the New

Julia Nitrate Co., Ltd., to acquire and work nitrate deposits, mines, mineral rights, etc., and to manufacture and deal in nitrates, iodine and other chemicals The subscribers to the memorandum of association are:—J. Campbell, 2, Coleman-street, E.C., gentleman; E. C. Hawkins, 4, Adam's Court, E.C., gent; V. H Smith, Suffolk House, E.C., gent.; C. V. Hicks, 53, New Broad-street, E.C., clerk; J. W. Daniell, 28, Holmdale-road, N.W., clerk; G. H. Warmington, Albemarle-road, Beckenham, clerk; P. D Kelleway, Homewood, Bromley.

Colne Vale Dye and Chemical Co., Ltd.—Capital £60,000 in £1 shares. This company has been formed to acquire the business carried on by H. F Clayton, as The Colne Vale Dye and Chemical Co, at Milnsbridge, near Huddersfield, Yorks, and to carry on the business of dye and chemical manufacturers, manufacturing chemists, dyers, bleachers, stovers, sizers, pressers, and finishers of cloth and other fabrics, etc. The subscribers to the memorandum of association are:—H. F. Clayton, Craigmhor, Huddersfield, chemical manufacturer; G. E. Sellers, Belmont Terrace, Milnsbridge, chemist's manager; J. Taylor, Meadow Bank, Marsh, Huddersfield, chemist's manager; T. E. Sellers, Whiteley Bottom, Milnsbridge, warehouseman; Joseph Leech, New-street, Milnsbridge, cashier; J. Oddy, Spring Field, Fartown, Huddersfield, chemist; Mrs. A. Clayton, Craigmhor, Huddersfield.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending August 12th.

Acetate of Lime—
U. States, 643 pks. C. Tennant, Sons, & Co.

Acetic Acid—
Germany, 17 pks. Argo S. S. Co.
Holland, 143 A. & M. Zimmermann
,, 50 R. W. Greeff & Co.
,, 46 Little & Johnston
,, 10 F. Boehm

Acetone—
France. 20 pks. E Catlin
Austria, 31 ,,
,, 10 T. Jones & Co.
Germany, 1 T. H. Lee

Alkali—
Germany, 5 t. J. Barber & Co.

Alum—
Holland, 25 pks. W. G. Taylor & Co.

Antimony Ore—
Sydney, 14 t. Hale & Son

Barium—
Germany, 2 pks. H. Johnson & Sons

Barium Sulphate—
Belgium, 50 pks. O' Hara & Hoar
,, 33 J. L. Lyon & Co.

Barytes—
Holland, 244 pks. W. Harrison & Co.
,, 14 cks. Petri Bros.
Belgium, 71 pks. W. Harrison & Co.
,, 801 J. L. Lyon & Co.
,, 250 ,,
Germany, 58 ,,

Bleaching Powder—
France, 54 pks. J. M. Steel & Co.

Benzine—
Germany, 135 pks. A. & M. Zimmermann

Caoutchouc—
Sydney, 7 c. Prop. Bull Wf.
Zanzibar, 4 L. & I. D. Jt. Co.
Madagascar, 19 ,,
Germany, 1 t. 5 Prop. Bull Wf.
Holland, 16 ,,
France, 1 15 Girard Brs. & Co.
Algoa Bay, 8 J. Owen
N. Russia, 1 1 H. Borrogaard & Co.
E. Indies, 1 15 W. M. Smith & Sons
,, 1 1 Blackwood, Dryson, & Co.
,, 7 10 Prop Bull Wf.
Belgium, 10 2 ,,

Castor Oil—
Italy, 5 brls. A. Laming & Co.
,, 25 cs. Wright, Kerr, & Co.
France, 30 F. Boehm

Caustic Potash—
Germany, 23 pks. J. M. Steel & Co.
France, 4 G. Burroughs

Chemicals *(otherwise undescribed)*
France, £5 G. S. N. Co.
,, 20 Burnett Brs. & Sons
Belgium, 28 H. Harkness
,, 25 Leach & Co.
,, 14 J. Harrison
Germany, 202 H. Lambert
,, 11 Argo S. S. Co.
,, 28 L. & I. D. Jt. Co.
Holland, 23 G. Boor & Co.

Citric Acid—
France, 26 pks. B. & F. Wf. Co., Ld.
Germany, 6 A. & M. Zimmerman

Coal Products—
Cresolene
U. States, 61 pks. Lunham & Moore
Pitch
W. Indies, 127 brls. Fellows, Morton, & Co.
Belgium, 5 cks. T. H. Lee
Germany, 50 H. Hunt
Tar
Libau, 55 brls. Linck Moeller, & Co.

Colours—
Germany, 27 cks. Taylor Brs.

Cream of Tartar—
France, 5 pks. M. Ashby, Ld.
,, 4 C. Atkins & Nisbet
,, 8 W. C. Bacon & Co.
Holland, 20 Kirkpatrick, Barr & Co.

Dyestuffs—
Alizarine
Holland, 8 pks. G. S. N. Co.
Cochineal
Canaries, 32 pks. Swanston & Co.
,, 18 J. Owen
Extracts
Austria, 180 pks. Boutcher, Mortimore & Co.
,, 102 Fellows, Morton & Co.
Germany, 54 T. H. Lee
France, 95 B. & F. Wf. Co., Ld.
Holland, 150 J. Norrenburg & Co.
Canada, 40 Furness, Withy, & Co.
,, 180 Boutcher, Mortimore & Co.
Gambier
Straits, 1,003 pks. P. & O S. N Co
,, 162 Brown & Elmslie
,, 43 Anderson, Weber & Co
,, 1,004 pks. Hoare, Wilson & Co.
,, 1,425 Prop. Hay's Wf.
,, 163 Dundee, Perth, & L. S. Co.
Indigo
Belgium, 1 cht. John Cockerill Line
Holland, 1 L. & I. D. Jt. Co.
E. Indies, 7 ,,
,, 20 Parsons & Keith
Myrabolams
E Indies, 610 pks. Prop. Hay's Wf.
,, 1,000 P & O S. N. Co
,, 1,000 J. E. Scott
Shumac
Belgium, 1,300 pks. Deering & Robottom
Tanners' Bark
Belgium, 21 t. Leach & Co.
E. Indies, 5 Scriven Brs. & Co.
Natal, 111 Boutcher, Mortimore, & Co.
Turmeric
E. Indies, 132 pks. Major & Field

Farina—
U. States, 10 pks. Taylor Brs.
Germany, 50 J. Barber & Co.
,, 150 R. Bennett & Co.
,, 150 Ohlenschlager Brs.
,, 50 Dunlop Brs. & Co.
,, 50 H. Lorenz
,, 92 T. H. Lee
Holland, 40 Hernu, Peron, & Co.

Gamboge—
Saigon, 9 pks. L. & I. D. Jt. Co.

Glucose—
U. States, 7,030 pks. 6,080 c. R. G. Hall & Co.
,, 150 1,860 L. Norman & Co., Ld.
,, 500 500 Fellows, Morton & Co.
,, 500 2,324 Soundy & Sons
,, 250 250 Beck & Pollitzer
,, 1,010 4 630 W. Grose & Co.
,, 1,060 1,060 Pickford & Co.
Germany, 50 482 Beresford & Co.
,, 100 100 Trier, Meyer, & Co.

Glue—
Austria, £490 Steinhoff, Sons & Co.
France, 150 W. J. Davies & Sons
,, 460 J. Harrison
,, 1,105 T. M. Duche & Sons
,, 74 Burnett Brs. & Sons
,, 61 Mory & Co
Belgium, 1,060 T. Ronaldson & Co.
,, 725 G. E. Banes
,, 75 T. M. Duche & Sons
Germany, 140 L. & I. D. Jt. Co.
,, 630 Deering & Robottom
,, 93 M. D. Co
,, 47 U. Ulrich
E. Indies, 240 Perkins & Homer
Holland, 24 A. G. Robinson & Co.

Glycerine—
Holland, £300 J. Barber & Co.
Germany, 52 ,,

Gutta Percha—
Straits, 10 t. 14 c. Kleinwort, Sons & Co.
,, 9 19 Huttenbach & Co.
,, 12 18 Anderson, Weber, & Smith
,, 5 Prop. Hay's Wf.
France, 1 15 Wrightson & Sons

Lead Acetate—
Germany, 26 pks. P. Jantzen

Litharge—
Germany. 7 pks. H. Lambert

Magnesium—
Germany. £27 Argo S. S. Co

Manure—
E. Indies, 200 t. Walker, Howard, & Co.
,, 100 A. Hunter & Co.
,, 200 T. T. Creed
,, 100 Union L. Co., Ld.
Belgium, 2 T. Ronaldson & Co.
Germany, 40 Anglo Con. Guano Wks
,, 200 Odams Manure & Chemical Co.

Methyl Alcohol—
Germany, 710 g. Tringle, Jacobs, & Co.
,, 576 W. Iszard
France, 1,250 Lister & Biggs
Belgium, 1,036 E. Catlin
U. States, 3,800 T. Jones & Co.

Molasses—
U. States, 75 cks. 75 c. E. H. Giles & Co.
,, 75 380 L. & I. D. Jt. Co.
,, 760 4,183 Ohlenschlager Brs.
,, 200 1,122 J. Forsey
Germany, 395 1,691 Ohlenschlager Brs.
B. W. I., 310 3,000 Perkins & Homer

Ochre—
France, 89 pks. Smith & Co.
,, 190 W. Harrison & Co.
Holland, 6 Phillipps & Graves

Paraffin Wax—
U. States, 1450 cs. Anglo-Am. Oil Co

Phosphates—
Algeria, 1,000 t. Anglo-Contl. Guano Works

Potash—
Germany, 12 pks. T. H. Lee

Potassium Bicarbonate—
Holland, 12 pks A. & M. Zimmermann

Potassium Carbonate—
Germany, 10 t. Petri Bros.
Canada, 6 18 c. Charles & Fox

Potassium Chlorate—
Holland, 20 pkgs. G. Boor & Co.

Potassium Oxalate—
Holland, 1 pkg. R W. Greeff & Co.

Potassium Prussiate—
France, 1 pkg. J. Owen

Red Lead—
Germany, 1 pkg H. Lambert

Rosin—
U. States, 500 brls. F. & S. Chiesman
,, 1450 Moore & Hole
Holland, 1 J. Owen

Salicylic Acid—
Belgium, 20 pkgs. J. Cockerill Line
Germany, 29 T. H. Lee

Saltpetre—
E. Indies, 1260 bgs. Lucas & Spencers Wf.
Germany 70 cks. Fletcher & Co.

Soda—
Holland. 6 t. R. W. Greeff & Co.

Soda Ash—
Holland 103 t. R. Waters

Sodium Bicarbonate—
Austria, 5 t. City Contl. Wf.
Spain, 3 c. A. Owen

Sodium Hypochlorite—
Germany, 8 t. 4 c. H. Lambert

Sodium Phosphate—
Belgium, 2 pkgs. R. W. Greeff & Co.
,, 26 cks. A. Boake Roberts and Co.

Sodium Prussiate—
Belgium, 29 pkgs. J. Owen

Starch—
Belgium, 440 pkgs T. Ronaldson & Co.
,, 83 Leach & Co.
,, 60 T. Ronaldson & Co.
Holland, 80 A. G. Robinson & Co.
,, 30 Hernu, Peron, & Co.
,, 450 J. R. Francis & Co.
,, 70 G. S. N. Co.
,, 2,941 Little & Johnston
France, 650 W. E. Cole
Germany, 400 Home & Co.
,, 137 Argo S. S. Co.
,, 1,400 Home & Co.
U. States, 475
,, 3000 Union Ltge. Co., Ld.
,, 100 E. & T. Pink
Austria, 50 Bellamy Wf., Ld.

Stearine—
France, 143 bgs. H. Hill & Sons
,, 129 ,,
Belgium, 3 cks. ,,
U. States, 11 Beresford & Co.

Sulphur—
Italy, 23 t. Deering & Robottom

Tallow—
N. S. W. 100 cks. Hoare, Wilson, & Co.
Queensland 163 C. A. & H. Nichols
,, 83 Beresford & Co.
U. States, 76 Cuthbert & Hall
,, 10 Lunham & Moore

N. Zealand, 200 J. W Cook & Co.' Ld.
" 20 Brown & Elmslie
Holland, 6 J. Owen
Germany, 150 C. S. Lovell
E. Indies, 45 Culverwell, Brooks, & Co

Tartaric Acid—
Holland, 26 pks. Kirkpatrick, Barr, & Co.

Ultramarine—
Germany, 8 pks. Blundel, Spence & Co., Ld.
Holland, 2 G. S. N. Co.
" 1 Phillipps & Graves

Varnish—
Germany, 2 pks. T. H Lee
" 10 Capes & Self
France, 1 Rosenberg Loewe, & Co.
" 1 Girard Freres & Co.
Belgium, 1 C. Atkins & Co.
U. States, 10 Lunham & Moore
" 55 Atlantic Transport Co.

Waste Salt—
Germany, 16 t. L. & I. D Jt. Co.
" 340 F. W. Berk & Co., Ld.

White Lead—
Belgium, 34 pks. T. & W. Farmiloe, Ld.
" 47 " "
Holland, 17 R. J. Francis & Co.
" 29 A. & M Zimmermann
" 54 M. Ashby, Ld.
Germany, 16 Randall Brs.
" 22 Burnell & Co.

Wood Pulp—
Sweden, 920 pks. Erith & Dartford
" 400 Alsing & Co.
" 430 E. J. & W. Goldsmith
" 250 H. Raby & Mather
" 1,120 W. G. Taylor & Co.
" 4,136 Henderson, Craig, & Co
Norway, 3,130 London Paper Mills Co.
" 1,600 Christophersen & Co.
Belgium, 2,076 J. Harrison

Zinc Oxide—
Holland, 100 pks. M. Ashby, Ld.
" 2 G. Boor & Co.
" 20 Netherlands S. B. Co.
Germany, 75 M. Ashby, Ld.
" 20 Kerestedji & Co.
U. States, 20 M Ashby, Ld.

LIVERPOOL.

Week ending August 10th.

Barytes—
Seville, 1,100 t.

Bone Ash—
Zarate, 126 bgs. J Nelson & Sons

Bones—
Alexandria, 20 bgs.

Boracic Acid—
Leghorn, 175 cks.

Borax—
Valparaiso, 3,407 bgs.

Caoutchouc—
Valparaiso, 32 bls.

Castor Oil—
Calcutta, 127 cs. Ralli Brs.
" 150
Marseilles, 43 / 129 cks. / 429 brls.

Chemicals *(otherwise unaescribed)*
Hamburg, 1 cs.

Cerome Ore—
Baltimore, 22 cks. P. R. M'Quie & Sons

Colours—
Hamburg, 3 cs
Rotterdam, 5 cks.

Cottonseed Oil—
Boston, 500 brls.

Cream of Tartar—
Barcelona, 3 cks F. L. Sitzler
Bordeaux, 13
Genoa, 1 brl. Langstaff & Co
Leghorn, 2 cks.
Tarragona, 4

Dyestuffs—
Cochineal
W. C. Africa, 26 bgs. Swanston & Co.
Cutch
Rangoon, 714 bxs.
Dyewood
Philadelphia, 250 bxs. / 60 brls.
Extract
B. Ayres, 4 cs. Mackinnon, Sheed, & Co.
Bordeaux, 250 cks.
Fiume, 409 brls.
Havre, 10 cks. Cunard S. S. Co.
Marseilles, 100 brls.
Nantes, 525 cks. R. J. Francis & Co.
Rotterdam, 20
Valparaiso, 11 cs.
Fustic
Kingston, 433 pps.
Savanilla, 932 pcs. G. H. Muller
Myrabolams
Bombay, 616 bgs. W. & R. Graham & Co.
" 1,340 E. D. Sassoon & Co.
" 2,586
Shumac
Marseilles, 41 bls. Evans, Sons, & Co.
Palermo, 100 / 3,150 bgs.

Farina—
Fiume, 200 bgs.

Glue—
Boston, 10 brls. D. Moseley & Sons
Marseilles, 3 cs.
Rotterdam, 10 bgs.

Gutta Percha—
Burutu, 29 bgs. Royal Niger Co

Linseed Oil—
Havre, 50 djns. Cunard S.S Co.

Manganese Ore—
Poti, 2,400 t.

Manure—
Karachi, 1,486 bgs.
Marseilles, 22

Mineral White—
Fiume, 380 cs.
Trieste, 100 bgs

Molasses—
N. Orleans, 1,368 brls.

Ochre—
Marseilles, 20 brls.

Paint—
Boston, 50 cs.

Paraffin Wax—
New York, 1,047 brls. Thompson & Bedford
Philadelphia, 30 cs. Anglo-American Oil Co.
Rangoon, 160 bxs.

Pyrites—
Huelva, 8,768 t. Matheson & Co.

Quebracho—
Hamburg, 110 bgs.

Rosin—
Baltimore, 1,192 brls.
Boston, 2,001
New York, 1,997

Saltpetre—
Calcutta, 751 bgs.
Hamburg, 3 crts.

Soap—
Boston, 5 cs.
Genoa, 1
Marseilles, 548 / 110 dms.
N. Orleans, 5,003 brls.

Soap Stock—
New York, 290 brls.

Soapstone—
Genoa, 100 bgs.

Starch—
Boston, 200 sks. Colby & Co.

Tallow—
Baltimore, 250 tcs
Boston, 1,000
" 287 650 brls.
B. Ayres, 562 cks / 1,702 hhds.
New York, 250 M. M. Schuiltz & Co.
" 50 / 89 tcs.
Philadelphia, 250
Rotterdam, 1 cs.
Zarate, 232 pps. J. Nelson & Sons

Tartar—
Valparaiso, 6 cks. Muich & Draste

Tartaric Acid—
Hamburg, 8 cks.
Havre, 2 cs. Cunard S.S. Co.
Marseilles, 38 cks.

Ultramarine—
Rotterdam 21 cks.

Varnish—
Montreal, 8 cs.

Waste Salt—
Hamburg, 1,975 bgs. / 340 t.

White Lead—
Rotterdam, 21 cks.

Wood Pulp—
Quebec, 1,600 bls. A. Wertheim & Co
Rotterdam, 50 pks.

MANCHESTER.

Week ending August 12th.

Acetate of Lime—
New York, 1,219 bgs.

Antimony Salt—
Hamburg, 2 cks.

Barytes—
Rotterdam, 40 cks.

Calcium Carbide—
Gothenburg, 10 dms.

Castor Oil—
Antwerp. 40 brls.

Caustic Potash—
Treport, 30 dms.

Chalk—
Treport, 5 cs.

Chemicals *(otherwise undescribed)*
Rotterdam, 5 cs.

Coal Products—
Alizarine
Rotterdam, 30 cks.
Aniline Oil
Rotterdam. 8 cks.
Carbolic Acid
Rouen, 26 cks.
Methylene
Treport, 14 cks.

Colours—
Rouen, 6 cks.
Antwerp, 4 16 cs.
Rotterdam, 216 cks. 46 cs 79 brls. 14 bxs.
Hamburg. 2

Cream of Tartar—
Antwerp, 10 cks.

Dyestuffs—
Extract
New York, 50 bxs.
Rouen, 10 cks.
Rotterdam, 10
Tannin
Rotterdam, 4 chts.

Farina—
Hamburg, 300 bgs.

Gelatine—
Hamburg, 3 cs.

Glucose—
New York, 50 brls.

Glue—
Rouen, 26 cks. 18 cs. 25 bls
Antwerp, 40 4
Hamburg. 80 bgs.

Glue Stock—
Hamburg, 85 bls.

Gutta Percha—
Hamburg. 1 cs.

Lead Acetate—
Rotterdam, 13 cks.

Limestone—
Ghent, 11 cs.
Antwerp, 6 crts.

Lithopone—
Rotterdam, 20 cks.

Nitrite—
Rotterdam, 8 cks.

Ochre—
Treport, 66 cks.

Paraffin Wax—
New York, 1,000 brls.

Potash—
Antwerp, 10 dms.

Potassium Muriate—
Hamburg, 10 cks.

Potassium Prussiate—
Hamburg, 4 cks.

Soap—
Rotterdam, 5 cs.

Starch—
New York, 3,619 bgs.
Antwerp, 1,189 cs.
Rotterdam, 92

Tallow—
New York, 100 tcs. 50 hds.

Tannic Acid—
Hamburg, 5 cks.

Tartaric Acid—
Rotterdam, 32 cks. 20 kgs.

Tartar Emetic—
Hamburg, 7 cks.

Tin Oxalate—
Rotterdam, 6 cks.

Ultramarine—
Rotterdam, 4 cks.

Waste Salt—
Hamburg, (a lot)

Wood Pulp—
Miramiche 541 bls. G. Simpson & Co.
Gefle, 5704
Skein 1750
Rotterdam, 100 pks.
Gothenburg, 3366 bls.
Hamburg, 40 bdls.
Christiania, 4093 bls. W. H. Ingram
Drammen, 1612 "

Zinc Oxide—
Antwerp. 5 cks.
New York, 100 brls.

HULL.

Week ending August 12th.

Acids—
Ghent, 1 ck. Wilson, Sons, & Co., Ld.
Rotterdam, 1 pk. Hull & Netherlands S. S. Co

Alcohol—
Hamburg, 1 cs. Allison Johnson

Alumina Sulphate—
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.

Antimony—
Dunkirk, 1 ck. Wilson, Sons, & Co., Ld

Asbestos—
Boston, 300 bls. Wilson, Sons, & Co., Ld.

Barytes—
Amsterdam, 46 cks. Hull & Netherlands S. S. Co.
Antwerp, 37 Gibson Brs.
Bremen, 38 G. Holmes & Co.
" 23

Caoutchouc—
Dunkirk, 16 cks. Wilson, Sons, & Co., Ld.

Chemicals *(otherwise undescribed)*
Hamburg, 11 pks. Wilson, Sons, & Co., Ld.

Coal Products—
Alizarine
Rotterdam, 96 pks. Hull & Netherlands S. S. Co.
" 202 1 bx. / 10 cks. / 10 brls. "
Aniline
Rotterdam, 119 pks. Hull & Netherlands S. S. Co.
1 brl.
Creosote Salt
Rotterdam, 17 pks. Hull & Netherlands S. S. Co
Naphthol
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.
Pitch
Hamburg, 1 brl. Wilson, Sons, & Co., Ld.
Tar
Konigsberg, 114 brls.
Libau, 42 / 12 cks.
Stettin, 29 Wilson, Sons, & Co., Ld.

Colours—
Amsterdam, 10 cks. Hull & Netherlands S. S. Co
Antwerp, 127 pks. Wilson Sons, & Co., Ld.
Bremen, 1 ck, J. Pyefinch & Co.
Ghent, 5
Hamburg, 52 pks. Wilson, 2 cs. 3 cks. Sons, & Co., Ld.
Rotterdam, 67 pks. Hull & Netherlands S. S. Co.
14 cs.
Rouen, 40 cks.

Copperas—
Bremen, 4 cks.

Cream of Tartar—
Bordeaux, 4 cks.
Rotterdam, 2 Hull & Netherlands S. S. Co.

Dyestuffs—
Dyewood
Antwerp, 50 bls. Wilson, Sons, & Co., Ld.
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.
Extract
Hamburg, 5 cks.
Rouen, 25 Wilson, Sons, & Co., Ld.
Logwood
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.

Farina—
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.
Harlingen, 100 bls. Hull & Netherlands S. S. Co.
Stettin, 450 bgs.

Glucose—
New York, 150 brls.

Glue—
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.
" 20 "
New York, 2 cs. "
Rouen, 28 cks. "
Stettin, 100 bsks. 3 bxs. "

Glue Stock—
Dunkirk, 1 bl. Wilson, Sons, & Co., Ld.
Ghent, 199 bgs. "
Hamburg, 14 bls. "
" 95 "

Litharge—
Amsterdam, 15 cks. Hull & Netherlands S. S. Co.

Lithopone—
Amsterdam, 41 cks. Hull & Netherlands S. S. Co.

Manganese—
Hamburg, 2 cks. Wilson, Sons, & Co., Ld.

Natrium—
Hamburg, 2 cks. Wilson, Sons, & Co., Ld.

Oxalic Acid—
Hamburg, 3 cks. Wilson, Sons, & Co., Ld.

Potash—
Dunkirk, 20 cks. Wilson, 40 dms. Sons, & Co., Ld.
Antwerp, 49

Red Lead—
Rotterdam, 12 cks. Hull & Netherlands S. S. Co.

Soap—
New York, 250 bxs.
Rotterdam, 7 cs. Hull & Netherlands S. S. Co.
1 pk.

Soda—
Antwerp, 26 cks. Wilson, Sons, & Co., Ld.
" 3 "
Hamburg, 715 bgs. "

Starch—
Amsterdam, 40 cs. Hull & Netherlands S. S. Co.
4 pks.
Bremen, 1,987 cs. Veltmann & Co.
" 1,003 pks.
Dunkirk, 50 bgs. Wilson, Sons, & Co., Ld.
Ghent, 172 cs.
New York, 700 bgs.

Stearine—
Dunkirk, 1 bg. Wilson, Sons, & Co., Ld.
Hamburg, 10 cs.
New York, 25 tcs. "

Sulphide—
Antwerp, 3 dms. Wilson, Sons, & Co., Ld.

Tallow—
Boston, 290 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 200 "

Tartaric Acid—
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.

Ultramarine—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co.
Bremen, 6
Hamburg, 1
Rotterdam, 14 "

White Lead
Antwerp, 22 cks. Bailey & Leetham, Ld.
Rotterdam, 89 Hull & Netherlands S. S. Co.

Wood Pulp—
Abo, 120 bls. J. Good & Sons
Bergen, 11 pks. Wilson, Sons, & Co., Ld.
Christiania, 2,394 "
Drontheim, 1,440 "
Gothenburg, 201 bdls. "
Halmstad, 1,500 bls.
Hamburg, 480 pks. "

Zinc Oxide—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Zinc Sulphate—
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.

Zinc White—
Amsterdam, 25 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending August 18th.

Acetate of Lime—
Philadelphia, 538 bgs.

Barium Sulphate—
Antwerp. { 200 bgs. / 34 cks.

Barytes—
Amsterdam, 46 cks. J. Rankine & Son
Rotterdam, 20 "

Castor Oil—
Antwerp, 168 cks.
Marseilles, 57

Chalk—
Antwerp, 1 bg.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs. J. Rankine & Son

Coal Products—
Alizarine
Rotterdam, 48 cks. J. Rankine & Son
3 cs.
Aniline
Rotterdam, 5 cks. J. Rankine & Son
4 cs.
Betanaphthol
Rotterdam, 3 cks. J. Rankine & Son

Colours—
Amsterdam, 1 ck. J. Rankine & Son
Hamburg, { 71 pks. / 13 cks. / 2 / 1 cs.
Rotterdam, { 128 pks. / 32 brls. / 2 bxs. J. Rankine & Son

Dried Blood—
Baltimore, 280 bxs.

Dyestuffs—
Extract
Marseilles, 60 cks.
Verdigris
Marseilles, 3 kgs.

Dyewood Extract—
New York, 10 kgs.

Fluoric Acid—
Hamburg, 2 cks.

Glucose—
New York, 50 brls.
Newport News, 150

Glue—
Antwerp, { 5 bls. / 6 cks.
New York, 246 brls.

Guano—
Tromsoe, 658 bgs.

Lead Acetate—
Hamburg, 20 cks.

Manganese—
Rotterdam, 4 cks. J. Rankine & Son

Nickel Ore—
Nuco, N. Cal. 3,967 t. Nickel Co.

Ochre—
Marseilles, 4 cs.

Painters' Colours—
Antwerp, 1 cs. 3 cks.

Paracul Acid—
Amsterdam, 2 cs. J. Rankine & Son

Potash—
Rotterdam, 39 cks. J. Rankine & Son

Rosin—
Baltimore, 550 brls.

Saltpetre—
Hamburg, 25 cks.

Soap—
Marseilles, 90 dms.
New York, 1,500 bxs.
Philadelphia, 250

Starch—
Antwerp, 42 cs.
Rotterdam, 20 J. Rankine & Son

Stearine—
Rotterdam, 16 cks. J. Rankine & Son

Tallow—
Baltimore, 100 brls.

Tallow Oil—
Boston, 60 tcs.

Tartaric Acid—
Marseilles, 4 cks.
Rotterdam, 16 J. Rankine & Son

Varnish—
New York, 42 brls.

White Lead—
Rotterdam, 87 cks. J. Rankine & Son
24 pks.

Wood Pulp—
Christiania, 643 bls. Alsing & Co.
Christiansand, 300
Rotterdam, 75 J. Rankine & Son

Zinc Oxide—
Antwerp, 10 cks
New York, 280 brls.

Zinc White—
Rotterdam, 70 pks. 50 cks. J. Rankine & Son

TYNE.

Week ending August 12th.

Asbestos—
Rotterdam, 33 bgs. 14½bls. Tyne S. S. Co.
Hamburg, 35 "

Barytes—
Amsterdam, 23 cks. W. Swanston & Sons
Rotterdam, 100 bgs. 57 cks. Tyne S. S. Co
Antwerp, 500 "

Chemicals *(otherwise undescribed)*
Rotterdam, 20 tins. Tyne S. S. Co.

Colours—
Rotterdam, 1 bx. Tyne S. S. Co.
Antwerp, 4 cks. "
Hamburg, 20 bgs. 4 "

Paint—
Hamburg, 23 dms. Tyne S. S. Co.

Salt—
Hamburg, 2425 t.

Soap—
Rotterdam, 7 cs. Tyne S. S. Co.

Starch—
Rotterdam, 146 cs.
Antwerp, 80 Tyne S. S. Co

Stearine—
Antwerp, 5 bgs. 2 cks. Tyne S. S. Co.

Yarnish—
Antwerp, 5 brls. Tyne S. S. Co.

Wood Pulp—
Christiania, 600 bls.

Zinc Oxide—
Antwerp, 25 brls. Tyne S. S. Co.

GOOLE.

Week ending August 9th.

Antimony—
Boulogne, 11 cks.

Barytes—
Hamburg, 20 cks.

Caoutchouc—
Boulogne, 2 cs. 12 cks.
Hamburg, 2

Chemicals *(otherwise undescribed)*
Antwerp, 12 cks.

Coal Products—
Alizarine
Rotterdam, 50 cks.
Anthracene
Boulogne, 4 cks.

Colours—
Hamburg, 40 cks.
Amsterdam, 2

Dyestuffs *(otherwise undescribed)*
Boulogne, 145 cs. 23 cks. 2 pk.
Rotterdam, 35 250

Farina—
Hamburg, 156 bgs.

Glue—
Boulogne, 1 cs.
Rotterdam, 6 bgs.

Potash—
Hamburg, 21 dms.
Dunkirk, 40
Calais, 28

Potassium Carbonate—
Hamburg, 3 cks.

Pyrites—
Seville, 1450 t.
Huelva, 760

Saltpetre—
Rotterdam, 100 bgs.
Hamburg, 2 cks.

Sodium Sulphate—
Rotterdam, 25 dms.

Starch—
Ghent, 205 cs.

Tartaric Acid—
Rotterdam, 2 cks.

Waste Salt—
Hamburg, 290 t.

GRIMSBY.

Week ending August 12th.

Alkali—
Hamburg, 2 cs.
Antwerp, 10 dms.

Barytes—
Hamburg, 2 cks.
Rotterdam, 100 bgs.

Caoutchouc—
Hamburg, 13 cs.
Rotterdam, 2
Antwerp, 2

Chemicals *(otherwise undescribed)*
Hamburg, 16 pks. 10 cks.

Colours—
Hamburg, 43 pks. 4 cs. 5 cks.
Rotterdam, 1 11
Antwerp, 56 37

Ferro-chrome—
Hamburg, 1 ck.

Glue—
Dieppe, 10 bs.

Starch—
Antwerp, 138 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 16th.

Acids—
Delagoa Bay, 9 pks. £13

Ammonia—
Sydney, 6 cs. £12

Ammonium Muriate—
Antwerp, 10 cks. £50

Christiania, 2 t. 43

Ammonium Sulphate—
Wellington, 75 t. £580

Auckland 80 620
Madras, 2 10 c. 30
Bremen, 50 605

Arsenic—
B. Ayres, 3 t. £63
Brisbane, 2 40

Borax—
Fremantle, 10 c. £28
Delagoa Bay, 20 cs. 31
Sydney, 2 t. 33

Carbonic Acid Gas—
Channel Is., 80 tubes £30

Caustic Soda—
Pt. Darwin, 3 c. £6
Durban, 4 t. 10 48
E. London, 6 5
Auckland, 10 19 94

Chemicals *(otherwise undescribed)*
Genoa, 4 cs. £170
Madras, 26 pks. 30
Malta, 6 19
Sydney, 12 236
Auckland, 13 31
Cape Town, 4 30
Pt. Elizabeth, 16 c. 1 32
Antwerp, { 100 bgs. / 10 kgs. 15 cks. 262
Brussels, 5 44
Cologne, 5 40
Rotterdam, 4 cs. 17 49 219
Fremantle 81 135
Durban, 16 cs. 167
Victoria, B.C., 12 12
Hamburg, 36 cks. 40 481
Amsterdam, 20 kgs. 131
Bordeaux, 1 20
E. London, 3 33
Bluff, 45 73
Melbourne, 23 199
Philadelphia, 16 cks. 282
Perth, 13 45
Paris, 35 84
Montreal, 12 75
Lisbon, 11 57
Karachi, 2 16

Chloride of Lime—
Fremantle, 9 t. 14 c. £104
Durban, 2 16

Citric Acid—
Bombay, 7 cs. £73
Copenhagen, 10 c. 82
Nelson, 1 7
Odessa, 5 49
Auckland, 18 144
Galatz, 4 34
Patea, 1 7
Helsingfors, 4 31
Hamburg, 1 ck. 43
Sydney, 10 82
Brussels, 10 60
St. Petersburg, 1 t. 9 14 cks. 702
Libau, 10 kgs. 4 127

Coal Products—
Alizarine
Lisbon, 2 cks. £31
Boston, 9 137
Aniline
Bristane, 1 cs. £19
Aniline Oil
Madras, 1 cs. £5
New York, 15 dms. 400
Anthracene Oil
Gothenburg, 500 cks. £473
Benzol
Boulogne, 115 cks. £258
Carbolic Acid
Sydney, 10 cr. £26
Pt. Elizabeth, 50 dms. 40
Philadelphia, 24 cks. 97
Rotterdam, 24 98
Wellington, 1 5
Antwerp, 8 pks. 13
Boston, 196 1,436
Creosote
Bayonne, 3,195 brls. £2,396
Bordeaux, 3,143 2,357
Philadelphia, 550 cks. 508
Boston, 200 192
Dyes
Boulogne, 5 cks. £78
Melbourne, 1 cs. 5
Boston, 4 39
Naphtha
Melbourne, 25 dms. £14
Sydney, 25 14
Naphthaline
Pt. Elizabeth, 10 cks. £6
New York, 89 90
Rotterdam, 9 12
Pitch
Montreal, 134 cks. £108
Antwerp, (in bulk) 235
Dunkirk, ,, 460
Malta, 190 70
Treport, 3 brls. 6
Tar
Calcutta, 200 rnlts. £172
Melbourne, 10 pks. 13
Stettin, 100 brls. 45
Wellington, 10 10
Malta, 5 cks. 6
Hamburg, 500 225
Auckland, 50 dms. 11
Durban, 100 12
Tar Oil
E. London, 5 cks. £16

Cream of Tartar—
Lyttelton, 3 c. £13
Malta, 1 5
Melbourne, 1 t. 10 kgs. 116
Perth, 2 pks. 38

Disinfectants—
Brisbane, 8 cs. £71
Jamaica, 165 dms. 96
Sydney, 10 cks. 18
Calcutta, 55 17
Hamburg, 50 250
E. London, 80 pks. 17
Pt. Elizabeth, 106 33
Colombo, 49 12

Fluoric Acid—
Melbourne, 4 cs. £10

Manure—
Penang, 9 t. 14 c. £78
Libau, 300 750
Oporto, 42 10 252
Landerneau, 110 880
Guernsey, 1 11

Nitric Acid—
E. London, 7 cs. £17

Oxalic Acid—
Madras, 10 c. £16

Phosphorus—
Wellington, 10 cs. £80

Potassium Bicarbonate—
Philadelphia, 1 t. 18 c. £49

Potassium Carbonate—
Sydney, 10 c. £10
Madeira, 3 6

Potassium Chlorate—
Wellington, 1 t. 8 c. £45
St. Petersburg, 7 kgs. 12
Helsingfors, 10 17

Potassium Cyanide—
Sydney, 1 t. £112
Rockhampton, 3 350
Fremantle, 15 150 cs. 3,223
Melbourne, 11 1,170

Potassium Prussiate—
New York, 10 cks. £211
Genoa, 3 t. 5 c. 234

Saltpetre—
Gibraltar, 6 t. £120
Rio de Janeiro, 2 9 c. 51
Melbourne, 4 1 86
Sydney, 2 43
Oporto, 7 17 139

Salts of Soda—
Melbourne, 1 t. 6 c. £191

Sheep Dip—
Punta Arenas 11 t. 4 c. £339
Lyttelton, 10 pks. 25
Durban, 9 23
E. London, 3 cs. 15
Pt. Elizabeth, 500 625
Adelaide, 500 625
Auckland, 400 700
B. Ayres, 19 c. 58 750 3,750

Soda—
Montreal, 1 t. 7 c. £10
Toronto, 2 5 45

Soda Crystals—
Delagoa Bay, 1 c. £5

Sodium Bicarbonate—
Delagoa Bay, 10 c. £9
Perth, 2 t. 10
Townsville, 2 15
Alexandria, 1 2 7
Malta, 1 1 7
Pt. Elizabeth, 10 7

Sodium Nitrate—
St. Kitt's, 25 t. £198

Sodium Sulphate—
Ghent, 200 t. £300

Sodium Tartrate—
Oporto, 10 c. £33

Strychnine—
Sydney, 4 cs. £30

Sulphur—
Durban, 20 cs. £5
Cape Town, 100 cks. 100 kgs. 129
E. London, 10 17

Sulphuric Acid—
B. Ayres, 6 cs. £10
Durban, 15 c. 20 dms. 40

Tartaric Acid—
Brisbane, 15 c. £81
Galatz, 3 21
Auckland, 5 27
St. Petersburg, 4 26
Libau, 1 7
Launceston, 3 17

LIVERPOOL.

Week ending August 16th.

Acetic Acid—
Copenhagen, 2 t. 6 c. £51

Alum—
Seville, 4 t. 19 c. £22

Ammonium Carbonate—
Riga, 1 t. 1 c. 2 q. £32
Libau, 1 32
Newfairwater, 2 64

Ammonium Muriate—
Sydney, 4 t. £22
Barcelona, 1 8 c. 29
Marseilles, 1 18 36

Ammonium Sulphate—
Honolulu, 20 t. £235
Leghorn, 10 7 c. 3 q. 125
Genoa, 31 1 1 2 365
Barbadoes, 80 3 1,002
Boston, 25 312
St. Nazaire, 17 170
Natal, 5 60
Samarang, 422 11 1 5,578
Sourabaya, 936 2 1 11,790
Probolingo, 68 9 1 830
Cheribon, 150 9 1,82
Penang, 54 9 646
New York, 50 8 61 1
Las Palmas, 23 18 29 4
Teneriffe, 1 11 2 0
Nantes, 30 34 3

Basic Slag—
St. Nazaire, 2,500 bgs. —
Nantes, 700 —
Barbadoes, 25 £65
Kingston, Ja., 5 t. 8
Halifax, 10 25

Bleaching Powder—
Amsterdam, 55 cks.
Baltimore, 174
Bombay, 8 bxs.
Boston, 518
Christiania, 10 20 cs.
Genoa, 54
Milwaukee, 79
Muncie, 73
Philadelphia, 82
Rouen, 10
Calcutta, 150
Lisbon, 20 brls.
Lockhaven, 32
Oporto, 8
Philadelphia, 46
Seville, 157
Spring Grove, 84
Venice, 25

Boracic Acid—
Rotterdam 1 . £29
Wellington, N.Z. 26
Sydney, 1 26

Borax—
Havana, 1 t. 12 c. £25
Iquique, 9 18
Cairo, 1 16
Genoa, 5 83
Stockholm, 4 8 66
Montreal, 33 15 540
Newfairwater, 13 5 1 q. 220

Calcium Chloride—
Boston, 13 t. 6 c. £25
Montreal, 10 2 23
Gothenburg, 5 11
Sydney, 10 1 21

Carbonate of Lime—
Lisbon, 1 t. 4 c. 1 q. £9

Castor Oil—
Panama, 30 cs.

Caustic Potash—
Baltimore, 3 t. £78
Montreal, 10 c. 15
Boston, 3 11 90

Caustic Soda—
Alicante, 25 dms. 12 brls.
Bari, 15
Boston, 100
Braila, 26
B. Ayres, 100 75 kgs.
Calcutta, 20
Carupano, 12
Chicago, 30 15 bxs. 5
Galatz, 223
Hiogo, 150
Ibrail, 30
Malta, 11
Mexico City, 59
Mollendo, 10
Nagasaki, 50
Odessa, 73
Piræus, 30
Rouen, 30
Salonica, 18
Samarang, 30
San Francisco, 40
Seville, 26 50
Singapore, 10
Valparaiso, 100
Zanzibar, 5
Adelaide, 33
Ancona, 35
Antwerp, 198 6
Bari, 108
Brisbane, 118
Dallas, 100
Genoa, 75
Kansas City, 42 75
Lisbon, 35
Malaga, 80
Marseilles, 79
M. Video, 50
Montreal 10 50 pks.
Monterey, 30
Naples, 17
New York, 50
Rangoon, 20
San Sebastian, 90
Santander, 100
Stockholm, 30
Trieste, 15
Yokohama, 173

Chemicals *(otherwise undescribed)*
Santos, 18 c. 2 q. £5
Varna, 3 t. 15 1 18
Pernambuco, 1 2 5
Callao, 4 1 3 19
Casablanca, 4 10 22
Accra, 5 pks. 23
Genoa, 4 cks. 23
M. Video, 1 6
Cape Town, 17 3 7
Algoa Bay, 7 9
Piræus, 3 brls. 19
Christiania 3 10
Cairo, 30 97
Stockholm, 2 cks. 23
Mersyne, 1 6
Trieste, 1 9
Malta, 10 9
Barcelona, 7 6 116
Galatz, 5 2 15
Madras, 31 3,100
Singapore, 3 300
Townsville, 2 10
Rangoon, 2 cs. 10
Tunis, 13 2 4
Odessa, 17 490
Seville, 4 6 3 25
New York, 14 16 370
Philadelphia, 15 1 376
Hamburg, 1 29

China Clay—
Milan, 100 bgs.
Baltimore, 575 t.
Boston, 1,599 cks.
Calcutta, 60
New York, 767
N. Orleans 30
Philadelphia, 230
Torinto, 40

Coal Products—
Aniline Colours
Barcelona, 5 cks.
Canada, 1
Hespeler, 1 kg.
Boston, 3
Hespeler, 1 brl.
Aniline Oil
Barcelona, 17 cks.
Genoa, 2 dms.
Aniline Salt
Canada, 1 ck.
Carbolic Acid
Yokohama, 10 t. £635

Philadelphia, 2 1 c. 43
Antwerp, 10 201
Oporto, 19 2 q. 64
Hamburg, 1 1 1 65
Marseilles, 4 1 3 244
St. Louis, 9 16 2 620
Rotterdam, 5 275
St. John's, Nfd., 5 3 11

Pitch
Sydney, 5 brls.

Tar
Gaboon, 12½ brls.
Pernambuco, 25
Philadelphia, 200
Galatz, 20
Honoluiu, 100
Penang, 19 cks.

Copperas—
Trieste, 9 t. 14 c. 1 q. £20

Copper Sulphate—
Vera Cruz, 10 c. £14
Wellington, 1 t. 25
Natal, 1 5 30
Pernambuco, 5 7
Galatz, 1 27
Tunis, 8 10
Christiania, 1 23
E. London, 4 6
Bordeaux, 5 121

Disinfectants—
Dunkirk, 4 c. 1 q. £7

Dried Blood—
Teneriffe, 1 t. £9

Glycerine—
Singapore, 1 t. £33
Shanghai, 3 150
Toronto, 5 15 c. 33
Vera Cruz, 6 16
New York, 10 4 255
Santos, 2 6

Guano -
Malaga, 40 t. £320

Magnesia—
Barcelona, 14 cs.
Lisbon, 1

Manure—
Teneriffe, 11 t. 19 c. 1 q. £72
Gd. Canary, 40 2 6

Oxalic Acid—
Boston, 5 t. 13 c. £113

Paint—
Akassa, 120 dms.
Bombay, 51
B. Ayres, 120 kgs. 1 ck 93
Cartagena, N.G., { 10 1 2 / 4 cs.
Havana, 10 cks.
Hong Kong, 40
Mayaquez, 22
Milan, 6
Mollendo, 4
M. Video, 47 cs
Rosario, 30
Santos, 20 pks.
Yokohama, 16 dms.
Alexandria, 50
Antwerp, 7 cks.
Arecibo, 76
Axim, 24
Belize, 208 1
Beyrout, 25
Bordeaux, 15
Calcutta 523 6
Cardenillo, 5
Colombo, 4
Egwanga, 16
Kingston, Ja., 3
Kobe, 200
Manila, 196 6
Puerto Cabello, 20
Sapeli, 38 pks.
Sierra Leone, 119 1
Syra, 70
Talcahuano, 40
Trieste, 16
Vera Cruz, 35
Warri, 3

Painters' Colours -
B. Ayres, 120 kgs.
Hamburg, 50
Havana, 7 brls.
Para, 3 cs.
Piræus, 2 cks.
San Juan, 230 kgs.
Sekondi, 96 pks.
Seville, 7 brls.

Paraffin Wax—
Bari, 20 bgs.
Barcelona, 20
Gijon, 16
Patras, 25

Phosphorus—
Hiogo, 10 c. £75

Phosphorus (Amorph.)—
Hiogo, 25 cs. £763
Yokohama, 1 11

Picric Acid—
Rangoon, 3 c. 1 q. £30

Potassium Bichromate—
Oporto, 15 c. 3 q. £33
Yokohama, 4 t. 18 2 155

Potassium Carbonate—
Boston 17 t. 8 c. £305

Potassium Chlorate—
Wellington, 5 c. £8
Madeira, 4 7
Lisbon, 10 25
Dover, N.H., 15 t. 461
Copenhagen, 6 130
Konigsberg, 15 23
Hiogo, 24 18 7 18
Funchall, 6 2 q. 10

Potassium Prussiate—
Genoa, 19 c. 3 q. 467
Vera Cruz, 1 t. 62

Potassium Stannate—
Bombay, 1 t. £56

Salammoniac—
Trieste, 3 t. 5 c. 1 q. £108

Salt—
Akassa, 919 t. 18 c.
Baltimore, 300
Boston, 700
Cameroons, 80 5
Cleveland, 100
Delagoa Bay, 15 14
Durban, 6 7
Fleusburg, 125
Gd. Bassa, 25
Lagos, 59 10
Montreal, 1,347
N. Orleans, 700
Rio de Janeiro, 50 cs.
Rouen, 10
Antwerp, 195
Belize, 87
B. Ayres, 100
Calcutta, 3,620
Carbarien, 25
Cienfuegos, 30
Ghent, 110
Gibara, 30
Havana, 100
Lagos, 100
Mossel Bay, 20
Newcastle, 57
Pt. Natal, 20
Quebec, 450
Rotterdam, 153
Sydney, 931
Trinidad, 86 17 c.

Salt Cake—
Hamburg, 319 t. 17 c. £179

Saltpetre—
Para, 1 t. 5 c. £28
Maranham, 5 9 1 q. 133

Soap—
Accra, 30 kgs.
Antwerp, 120 bxs.
Axim, 101
Bangkok, 1,000 cs.
Batavia, 1,900 bxs.
Belize, 637
Bombay, 401 27 25 pkgs.
Bonny, 112
Calcutta, 750 10
Canaria, 224
Colombo, 140 dms.
Conakry, 100
Durban, 770
Gibraltar, 25
Gd. Bassa, 50
Hamburg, 10
Havana, 3
Hong Kong, 50
Johannesburg, 40
Lagos, 224
Manila, 4
Manaos 570
New York, { 40 / 10 brls. 1 ck.
Old Calabar, 1,919
Para, 600 1 100 bdls.
Pr. Elizabeth, 100 175
Pt. Natal, 4,885 9
Pretoria, 8
Rotterdam, 200 30 180 dms.
St. John's, N'fd. 125
St. Lucia, 150
Tientsin, 100
Trinidad, 302
Alexandria, 21
Algoa Bay, 1,372 10 37 bdls.
Brussels 1,800
B. Ayres, 23
Cape Lopez, 2
Cartagena, 9
Constantinople, 5 brls.
Kurrachee, 3
Madras, 1
Malta, 30
Penang, 3 cks.
Bangoon, 18
Saltpond 50
Savannah, 60
Shanghai, 17,951
Sierra Leone, 40
Singapore, 2,183
Smyrna, 10
Opoloo, 2,380
Toronto, 600
Truxillo, 100 bdls.
Vancouver, 4
Warri, 560

Soda Ash—
Aarhus, 200 bgs.
Calcutta, 220 kgs. 4 brls. 91 cks.
Canea, 100 bgs.
Christiania, 380 2
Copenhagen, 1,250 15 dms.
Hong Kong, 60 cks.
Horsens 50
Johannesburg, 40 kgs
Kobe, 236
Landshrona, 240 bgs.
Libau, 200
Malmo, 160
Newfairwater, 800
Paysandu, 50
Philadelphia, 82 tcs.
Rio de Janeiro, 35
Trieste, 100
Yokohama, 108
Aalborg, 160
Adelaide, 100
Barcelona, 40
Boston, 410 10
Brisbane, 32
B. Ayres, 126
Ghent, 100
Melbourne, 108
New York, 3
Piræus, 25 brls.
Skein, 50
Sydney, 501
Talcahuano 100
Toronto, 200
Valparaiso, 18
Windsor, 320

Soda Crystals—
Bombay, 200 kgs.
Boston, 840 brls.
Calcutta, 33
Honolulu, 40 25
New York, 400 280 cks.
Penang, 2
Valparaiso, 16
Constantinople, 250
Malta, 50 30
Montreal, 84
Newcastle, 200
Quebec, 40 pks.
Windsor, 50

Sodium Bicarbonate—
Acajutla, 40 kgs.
Antwerp, 10 50 bgs.
Brockville, 100
Calcutta, 1 600
Ghent, 10
Havana, 20
Hiogo, 250
Hong Kong, 80
Honolulu, 100
Karachi, 100
Kobe, 400
Malta, 84
Odessa, 100 dms.
Rouen, 310 50 cks.
St. John's, N'fd, 20
Smyrna, 95
Adelaide, 250
Brisbane, 100
Dunedin, 240
E. London, 10
Melbourne, 650
Johannesburg, 60
Newcastle, 50
San Juan, 20
Seville, 164 pks.
Singapore, 60 15
Sydney, 113
Tampico, 200
Toronto, 30
Valencia, 20 4
Wellington, 90
Yokohama, 109

Sodium Bichromate—
Oporto, 6 cks.

Sodium Chlorate -
Gutujeusky, 50 kgs.
Hamburg, 20
Boston, 125

Sodium Hypochlorite—
Sydney, 80 kgs.

Sodium Silicate—
Kingston, Ja., 10 brls.
Vera Cruz, 10

Sodium Sulphate—
Leghorn, 1200 bgs.

Starch—
Ferrol, 10 cs.
Lisbon, 2 cks.
Odessa, 10 brls.
Smyrna, 5 cs.

Sulphur—
Montreal, 75 t. £319
Maranham, 19 c. 2 q. 5
Norrkoping, 50 2 233
Natal, 7 10 35
Ghent, 6 26
Boston, 210 4 1036

Sulphuric Acid—
Maceio, 10 cs. £8

Superphosphates—
Natal 40 t. £129
Tarragona, 12 t. £37
Stettin 1000 2970
Teneriffe, 6 18

Varnish—
Ambrizette, 8 brls.
Antwerp, 36 cks.
Barcelona, 1 3
Cape Town, 2 cs.
Lisbon, 2 brls.
Genoa, 3 cs.
Naples, 8
Seville, 5 pks.

White Lead—
Bombay, 2000 dms.
Mexico City, 2 cks.
Montreal, 20
Oporto, 4

Zinc Chloride—
Bombay, 8 t. 14 c. 2 q. £138

MANCHESTER.

Week ending August 16th.

Alumino-ferric—
Quebec, 67 tcs.

Bleaching Powder—
Montreal, 40 cks.

Chalk—
France, 24 cks.

Chemicals *(otherwise undescribed)*
Basle, 6 cks. 4 cs. 25 kgs.
Bombay, 84 brls.
Cologne, 5
Djerba, 5
Mersyne 73
Sfax 11
Tunis, 13

Chloride of Lime—
Bombay, 23 cks.

Coal Products—

Aniline Colours
Lille, 1 cs.
Parkin, 2 kgs.

Aniline Oil
Belgium, 5 dms.
France, 9 tins.

Aniline Salt
Belgium, 11 brls.

Carbolic Acid
France, 7 cks. 68 btls.

Naphtha
Lille, 15 brls.

Naphthol
Germany, 4 cks.

Pitch
Belgium, 203 t. 10 c.

Colours—
Germany, 12 kgs. 13 cs.
France, 1 ck.

Copperas—
Alexandria, 70 brls.

Glue—
Belgium, 10 cks.

Glycerine—
Holland, 36 cks.

Linseed Oil—
Beyrout, 9 brls.
Jaffa 10

Salammoniac—
Beyrout, 5 brls.
Djerba, 2 cks.

Salt—
Montreal, 200 t.

Soap—
Mohamerah, 50 bxs.
Alexandria, 50 cs.

Sodium Arseniate—
France, 4 cks.
Sodium Naphthionate—
Germany, 27 cks.
Sulphate (Alumina)—
Bombay, 9 cks.
Tallow—
Bombay, 5 cks. 75 brls.
Turpentine—
Beyrout, 1 brl.
Varnish—
Bombay, 3 dms.
Venetian Red—
Alexandria, 150 brls.

GLASGOW.

Week ending August 18th.

Acetic Acid—
Chicago, £20
Ammonium Carbonate—
Bergen, £17
Rotterdam, 20
Ammonium Sulphate—
Barcelona, 438 t. 13 c. 2 q.
Borax—
Amsterdam, £37
Chemicals (*otherwise undescribed*)
Barcelona, £40
Calcutta, 1 t. 2 c. 2 q.
Coal Products—
Benzine
Bordeaux, £183
Creosote Oil
Bordeaux, £2,100
Christiania, 40
Pitch
Boston, £115
Gothenburg, 126
Tar Oil
Antwerp, £105
Hamburg, 1 t. 2 c.
Dyestuffs—
Fustic Extract
Canada, £69 16s.
Logwood
Canada, £30 15s.
Farina—
Calcutta, £130 10s.
Ferro Silicon—
Fiume, 150 t.
Glue—
Pt. Elizabeth, £22
Lead Acetate—
Bombay, 6 t. 11 c. 2 q.
Lead Nitrate—
Canada, £100
Linseed Oil—
Malta, 2 t. 9 c.
B. Ayres, 3 4 1 q
U.S.A., 1 3
Logwood Extract—
Bergen, £27
Manganese (Recovered)—
Fiume, £95
Molasses—
Canada, 14 c. 3 q.
Paint—
B. Ayres, £76
Calcutta, 940
M. Video, 60 13s.
Painters' Colours—
Algoa Bay, £165
Antwerp, 27
Malta, 81
U.S.A., 75
Paraffin Wax—
Fiume, £82
Italy, 186
Venice, 144
Barcelona, 135
Sicily, 22
Potassium Bichromate—
Bombay, £120
Rotterdam, 5 t. 2 c.
Barcelona, 106
Montreal, 112
Potassium Prussiate—
Barcelona, £90
New York, 187
Rosin—
Antwerp, £54
Sheep Dip—
B. Ayres, £100
Sodium Bichromate—
Antwerp, 5 t. 1 q.
Bombay, £28
Starch—
Rotterdam, 5 c.
Tallow—
Rotterdam, 2 t. 16 c.
Varnish—
Calcutta, £20
White Lead—
Natal, £43
Malta, 63
B. Ayres, 72
Calcutta, 160
Rosaria, 21
Zinc White—
Calcutta, £147

HULL.

Week ending August 12th.

Alkali—
Hamburg, 60 dms.
Ammonium Sulphate—
Hamburg, 300 bgs.
Rotterdam, 542
Stettin, 500
Venice, 195
Antimony—
Helsingfors, 4 cs.
Basic Slag—
Helsingfors, 3,048 bgs.
Wyburg, 1,0 6
Bleaching Powder—
Odessa, 16 cks.
Stettin, 19
Borax—
Amsterdam, 10 cks.
Caustic Soda—
Danzig, 35 dms.
Riga, 50
Chemicals (*otherwise undescribed*)
Amsterdam, 25 cks.
Alexandria, 100 12 pks.
Bari, 10 cs.
Bergen, 551 slbs
Bremen, 1
Copenhagen, 42
Christiania, { 2 740 / 24 pks.*
Constantinople, 20 60 brls.
Danzig, 13 1
Gothenburg, 10 cs.
Hamburg, 13 5
Rotterdam, 116
Riga, 30 13
St. Petersburg, 3
Stettin, 5
Venice, 38
Coal Products—
Creosote
Boston, 266 cks.
Odessa, 10
Pitch
Bergen, 2 cks.
Christiansund, 10
Tar
Amsterdam, 15 cks.
Bergen, 5
Copenhagen, 3
Christiania, 29
Helsingfors, 200
Cottonseed Oil—
Antwerp, 1 t. 1 c.
Amsterdam, 10 2
Bremen, 5 1
Copenhagen, 10
Christiania, 18
Gothenburg, 2 12
Hamburg, 27 11
Harlingen, 5
Rotterdam, 5 4
Stockholm, 19 17
Dyestuffs (*otherwise undescribed*)
Christiania, 6 cks.
Linseed Oil—
Copenhagen, 2 t. 2 c
Christiania, 1 1 2
Christiansand, 18
Drontheim, 3 1
Manure—
Copenhagen, 10 bgs.
Paint—
Alexandria 3 cks
Painters' Colours—
Antwerp, { 18cks 6cs. 78 pks. / 161 dms.
Amsterdam, 0
Alexandria, 45 3 12
Copenhagen, 1 1
Christiania, 29
Christiansand, 52 pks.
Gothenburg, 1 122 dms.
Hamburg, 16 1
Konigsberg, 6
New York, 30
Rotterdam, 19
Riga, 1
St Petersburg, 1
Stettin, 15
Stockholm, 16
Trieste, 12
Venice, 19
Soap—
Amsterdam, 24 cs.
Christiania, 200
Drontheim, 40
Gothenburg, 2
Starch—
Odessa, 750 cs.
Tallow—
Antwerp, 30 cks.
Varnish—
Antwerp, 2 cks.
Abo, 10 3 cs.
Gothenburg, 1
Rotterdam, 5
Stettin, 1

TYNE.

Week ending August 12th.

Alkali—
Hamburg, 10 t. 15 c. 3 q.
Amsterdam, 31 9 2
Christiania, 3 17
Antimony—
Rotterdam, 10 t.
Hamburg, 10
St. Petersburg, 10
New York, 30
Montreal, 10 cks.
Barium—
Hamburg, 2 t. 5 c. 3 q.
Barium Carbonate—
Hamburg, 150 t.
St. Petersburg, 58 10 c.
New York, 50 3
Barium Sulphate—
New York, 5 t. 7 c. 1 q.
Bleaching Powder—
Antwerp, 42 t. 2 c. 2 q.
Hamburg, 35 2 2
Rotterdam, 2 5
Copenhagen, 14 5 2
Horsens, 3 6
Drontheim, 13 15
Amsterdam, 53 2 2
Christiania, 20 6
Bergen, 19
Borax—
Aarhuus, 1 t. 1 c. 3 q.
Castor Oil—
Montreal, 1 brl.
Caustic Soda—
Antwerp, 9 t. 17 c. 1 q.
St. Petersburg, 15
Abo, 14 10
Christiania, 5 16
Copenhagen, 12 18 2
Aalborg, 4 7
Montreal, 16 14
Amsterdam, 16 17 3
New York, 100 8 3
Chalk—
Ergastivia, 2 q.
Chloride of Lime—
New York, 50 t. 3 c. 1 q.
Colours—
Ergastivia, 2 c.
Disinfectants—
Bergen, 1 cs.
Ferro Silicon—
New York, 300 t.
Fluor Spar—
New York, 100 t. 17 c.
Linseed Oil—
Ergastivia, 12 c.
Montreal, 5 brls.
Magnesia—
Rotterdam, 28 lbs.
Orange Mineral—
Montreal, 22 t. 9 c.
Paint—
Antwerp, 12 c.
Hamburg, 4 t. 17
Rotterdam, 4 2 10 dms.
Abo, 2
Christiania, 2 2 q.
Painters' Colours—
Ergastivia, 3 q.
Rotterdam, 5 dms.
Paraffin Wax—
Abo, 1 t. 1 q.
Pearl Hardening—
New York, 38 t. 14 c. 1 q.
Potash Salts—
St. Petersburg, 10 t. 4 c. 2 q.
Pyridine—
Hamburg, 11 c. 2 q.
Red Lead—
Genoa, 6 t. 18 c 3 q.
Antwerp, 3 1
Hamburg, 31 18
Christiania, 4 19 3
Copenhagen, 2 6 3
Montreal, 7 19 2
Soap Lyes
Hamburg, 30 dms.
Soda—
Christiania, 11 t. 8 c.
Copenhagen, 49 4 1 q
Soda Ash—
Hamburg, 2 t. 14 c. 1 q.
Bergen, 10
Sodium Hyposulphite—
Christiania, 19 c. 2 q.
New York, 22 t. 6 2
Sodium Sulphate—
Gefle, 300 t.
Antwerp, 120
Sulphate of Lime—
New York, 5 t. 3 q.
Superphosphates—
St. Petersburg, 1 t.
Helsingfors, 683
White Lead—
Copenhagen, 1 t. 3 c. 2 q.
Montreal, { 30 100 pks. / 38 cks.

GOOLE.

Week ending August 9th.

Chemicals (*otherwise undescribed*)
Boulogne, 11 cks.
Hamburg, 30 crbys.
Rotterdam, 10 dms.
Coal Products (*otherwise undes.*)—
Amsterdam, 67 cks.
Antwerp, 13
Boulogne, 58 4 cs 2 dms.
Dunkirk, 2
Ghent, 1
Hamburg, 37
Rotterdam, 4
Coal Products—
Benzol
Boulogne, 30 cks.
Hamburg, 16 dms.
Dyestuffs (*otherwise undescribed*)
Ghent, 1 ck.
Hamburg, 60 bgs.
Rotterdam, 44 cks.
Manure—
Hamburg, 579 bgs.
Rotterdam, 189
Painters' Colours—
Rotterdam, 5 cks.
Boulogne, 4
Ghent, 2

GRIMSBY.

Week ending August 12th.

Alkali—
Malmo, 1 ck.
Ammonium Sulphate—
Rotterdam, 35 t.
Caoutchouc—
Esbjerg, 1 bl
Gothenburg, 1
Malmo, 1 cs.
Chemicals (*otherwise undescribed*)
Hamburg, 100 dms.
Coal Products (*otherwise undes.*)—
Dieppe, 57 cks. 5 pks.
Hamburg, 2
Dyestuffs—
Extract
Malmo, 1 cs.
Manure—
Esbjerg, 1,020 bgs.
Painters' Colours—
Antwerp, 3 cks. 2 cs.
Rotterdam, 5
Hamburg 4 kgs.

PRICES CURRENT. WEDNESDAY, Aug. 23, 1899

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities may va

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	18	15	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	8	9
,, ,, (grey) Hull ,,	12	5	0
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/- to 60/-		
Bleaching Powder, 35 % nett ,,	4	15	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 30 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	8
,, 50/90 ,, ,,	0	0	10
Carbolic Acid (crude 60°) ,,	0	2	1
,, (crystallised 40°) per lb.	0	0	7½
,, (liquid 95/97%) per gallon	0	1	1
Creosote (ordinary) ,,	0	0	3¼
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	11	0
Solvent Naphtha, 90% at 160° per gallon	0	1	2½
Copper per ton	75	18	9
,, Sulphate ,,	23	15	0
,, Oxide (copper scales) ,,	58	0	0
Glycerine (crude) 80% ,,	28	10	0
,, (distilled S.G. 1260°) ,,	45	0	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	16	2	6
,, Litharge Flake (ex ship) ,,	17	10	0
,, Acetate (white ,,) ,,	22	0	0
,, ,, (brown ,,) ,,	17	15	0
,, Carbonate (white lead) pure ,,	20	0	0
,, *Nitrate* ,,	22	0	0

	£	s.
Lime, Acetate (brown) (ex ship) per ton	4	17
,, ,, (grey) (ex ship) ,,	7	15
Magnesium (ribbon and wire) per oz.	0	2
,, Chloride (ex ship) per ton	3	0
,, Carbonate ,, per cwt.	1	17
,, Calcined Magnesia per ton	10	10
,, Sulphate (Epsom Salts) ,,	2	12
Manganese, Sulphate ,,	14	15
,, Borate ,, per cwt.	2	0
,, Ore, 70% per ton	3	10
Methylated Spirit, 61° O.P per gallon	0	2
Naphtha (Wood), Solvent ,,	0	2
,, ,, Miscible, 60° O.P. ,,	0	3
Oils:—		
Cotton-seed per ton	18	10
Linseed ,,	22	5
Stearine ,,	27	0
Phosphorus (Yellow) per lb.	0	1
,, (red) ,,	0	2
Potassium Bichromate nett ,,	0	0
,, Carbonate, 90% (ex ship) per ton	16	10
,, Chlorate per lb.	0	0
,, Cyanide, 98 % ,,	0	1
,, Hydrate (Caustic Potash) 90 % per ton	23	10
,, ,, ,, 75/80 % ,,	18	10
,, Potash Hydrate Liquid 50 % ,,	11	15
,, Nitrate (refined) ,,	19	15
,, Permanganate per cwt.	2	12
,, Prussiate Yellow per lb.	0	0
,, Sulphate, 90 % (ex ship) per ton	9	15
,, Muriate, 80 % ,,	8	15
Silver (metal) per oz.	0	2
Sodium (metal) per lb.	0	2
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	2
,, ,, (Soda Crystals) ,, ,,	2	12
,, Acetate (ex-ship) ,,	13	5
,, Arseniate, 45 % ,,	13	10
,, Chlorate per lb.	0	0
,, Borate (Borax) nett per ton	16	0
,, Bichromate ,, per lb.	0	0
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5
,, ,, (74 % Caustic Soda) ,, ,, ,,	8	15
,, ,, (70 % Caustic Soda) ,, ,, ,,	8	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	7	0
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	4	2
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10
,, Bicarbonate (cwt. kegs) ,,	6	15
,, Hyposulphite ,,	5	5
,, Manganate, 25 % ,,	15	10
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7
,, Nitrite, 98 % per ton	26	0
,, Phosphate ,,	10	7
,, Prussiate per lb.	0	0
,, Silicate (glass) per ton	4	10
,, ,, (liquid, 100°Tw.) ,,	3	10
,, Stannate, 40 % per cwt.	3	10
,, Sulphate (Salt-cake) per ton	1	4
,, ,, (Glauber's Salts) ,,	1	12
,, Sulphide (crystals) ,,	6	5
,, Sulphite ,,	5	2
Strontium Hydrate, 100 % ,,	9	10
Sulphocyanide Ammonium, 95% per lb.	0	6
,, Barium, 95 % ,,	0	4
,, Potassium ,,	0	7
Sulphur (Flowers) per ton	7	0
,, (Roll Brimstone) ,,	7	0
,, Brimstone: Best quality ,,	6	6
Superphosphate of Lime (26 %) ,,	4	0
Tallow ,,	2	0
Tin Crystals per lb.	0	10½
,, English Ingots per ton	1	10
Zinc (Spelter) ,,	23	15
,, Chloride (solution, 100° Tw.) ,,	7	10
,, Sulphate, Crystal ,,	7	15

THE

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CURRENT TOPICS.

IRREGULAR ARBITRATION.

WE have long been advocates of arbitration as a means of settling business disagreements, but it is a matter for regret to have to chronicle a case such as that which appears in this issue, in our legal columns.

Are there no rules for the guidance of lay arbitrators and umpires in regard to procedure? It seems strange that there should be any possibility of partial evidence being submitted without the knowledge and consent of all parties concerned. In all sports the umpire or arbitrators have certain rules, regulations, and restrictions specified for their guidance, and an umpire is selected in accordance with his known ability to appreciate and apply the tenets which his instructions advocate. In the same way arbitrators should be chosen, with special heed to impartiality. Apparently had this been done, the case in question would have never reached the jealous eyes of the legal profession and given occasion for their envious tongues to scoff.

The judgment teems with covert sneers at the partiality of the lay mind, and this is most undesirable if the dignity of lay arbitration is to be upheld. It is a matter of common knowledge how the majority of "the" profession look upon this form of arbitration, and the allusion of Mr. Justice Darling to "Chamber of Commerce people" shows that the same feeling of enmity prevails in the higher walks as is current at the Bar.

Virtually, the Chamber of Arbitration became a necessity owing to the long-windedness of the legal brethren, their tortuous procedure, interminable delays, and general inability to grasp the fact that business disputes of minor magnitude need settling out of hand. Mr. Pollard's query concerning the ability of a member of the Bar to adjudicate, was not answered or disposed of by Mr. Bankes's attempt at sarcasm. When lay arbitrators make a mistake, both barristers and judges should remember that their imitators are only guilty of what is held to be the sincerest flattery.

At the same time, let us hope that those who are charged with the duties of arbitrators will do all in their power to avoid disturbing the serenity of the legal mind by such direct flattery.

THE SANITARY CONGRESS.

On Tuesday the Sanitary Institute opened its 18th Annual Congress at Southampton. We have not reported the proceedings; we think it will be sufficient if we indicate the tenour of the President's address. The laudable aims of the Institute are well known, and so are its methods.

The President took the Book of Leviticus as his text, and justly gave Moses credit as being the greatest of sanitary engineers. He then expounded the six essential features of the Mosaic doctrine, which were pure air, water, food, soil, dwellings, and bodies. He lamented the neglect of these principles by the Gentiles, complimented the Mahomedans

on their adherence to at least some of them, and exalted the Jew who had "remained faithful and was the healthiest "and longest-lived type of humanity."

It is fortunate the Congress was not held in France this year, or we fear the President might have shared the fate of Maître Labori. There are of course Jews and Jews, but personally, though we have no feeling against the race, or any racial prejudice, we should not like to be subjected to Semitic sanitary reform—at least not so far as our experience goes at present.

We do not think that longevity of the race is greatly due to sanitary precautions. Their "pure air" is mostly acquired in the smokiest of towns. Pure water would hardly, if ever, be obtainable did not the Corporations carefully pipe it into their houses. The food may possibly be the secret of their longevity, for the smell it emits in preparation is sufficient to kill all self-respecting microbes. The soil must also be innocuous, as it abounds upon their person and apparel. The dwellings fetch double rents mainly on account of the inconceivable uncleanliness which follows occupancy, and in the matter of bodies the odour of sanctity is too pronounced to admit of further investigation or discussion. We have no desire to prolong our days if we are to do so by emulating the latter-day disciples of sanitary law as laid down in Leviticus. The principles are sound, but they have indifferent exponents.

TREATING WASTE PRODUCTS IN GERMANY.

ONE of the most successful and interesting ventures that have been called into existence during the last fifteen years in Germany is the Trebertrocknung Actien-Gesellschaft, which held its annual general meeting at Cassel this week.

This well-known concern was formed at Cassel in 1883 for the purpose of working a patent process for the drying and utilisation of brewers' grain and the dregs and residues from distilleries, sugar refineries, &c. Since then the company has extended its field of operation. Indeed, from an industrial point of view the work of the company has been of a varied and most interesting kind, as well as most important as regards general economy and hygiene. The company gives employment to 17 industrial chemists, 29 civil engineers, technical experts, and architects, and 77 clerks. Its laboratories and general works at Cassel are on a large scale. As a parent company it has given life to a considerable number of subsidiary ones, which it provides with the necessary plant and apparatus for the working of the company's patents under licence. The development of the company has assumed such magnitude that the capital now stands at £600,000, represented by 12,000 shares of 1,000 marks each; while the aggregate capital of the subsidiary companies at the beginning of 1898 amounted to no less than £1,700,000. The operations of the company for the past two years have been on so large a scale that the branch of their undertaking devoted to the construction and installation of plant and machinery has been inadequate to cope with the orders received. The turnover reached nearly £1,526,000. in 1897-98. In the course of that year the capital was increased by £300,000.

From the report for 1898-99, it appears that there has been an increase in the sale of products of £120,524. The net profits amount to £240,704., making, with the balance brought down from the previous year, a total of £304,540. available for distribution on March 31 last, the date of closing the accounts. The reserve funds represent £801,236., or over 25 per cent. more than the share capital. The profits have been dealt with as follows: To special reserve, £25,000; to commissions reserve, £3,000; percentage to the board of directors, £10,634., and to the board of control, £19,470.; to employés and workmen's fund, £3,000.; to dividend, 40 per cent. for twelve months, £120,000; supplementary dividend (six months, on new shares), £60,020.; leaving a balance of £63,435 to be carried to next account.

Chemical Trade of Memel.—Owing to the Spanish-American war, which interfered with the supply of raw materials and raised prices, the quotations for chemicals were higher than in the preceding years. The trade was good, and 34,156 tons of artificial manures of all kinds were brought into Memel.

REPORT OF THE CUSTOMS COMMISSIONERS.

THE forty-third report of the Commissioners of Customs, just issued, states that the gross Imperial Customs revenue collected in the year 1898-9 amounted to £21,901,540., or, after deduction of drawbacks and repayments, to £21,558,227. net. This (notwithstanding the alteration in the tobacco duties with an anticipated reduction of £1,120,000., and the occurrence of two Good Fridays in the yearly period which this report covers) is only £234,023. less than the produce of 1897-8, and is £478,227. more than the Budget estimate for the year. The Customs revenue has thus brought in 2·27% more than it was expected to produce, and only 1·07% less than it produced in 1897-8. The amount realised on chicory has fallen short of the yield of the previous year by £2,175., owing apparently to the smaller consignments from Belgium, the principal source of our foreign supply. The revenue received amounted to £52,108 Coffee produced £173,590., being £3,541. beyond the yield of 1897-8, a rise of 2%. The receipt from cocoa and chocolate in 1898-9 was £193,845., an increase of £4,152, or 2·1% over the preceding year. It was mentioned in the last report that there had been a very large rise in the year 1897-8 in the imports of foreign manufactured cocoa for use in this country. The increase was no less than 80·4%. Apparently, however, manufacturers in the United Kingdom have been stimulated to further increased efforts, for, whilst there has been a considerable advance in the total quantities of cocoa upon which duty has been paid, very much less has been received in a manufactured state from foreign countries. Taken collectively, dried fruits yielded £382,005., against £389,573. in 1897-8 The yield of revenue from rum in the last financial year was £2,124,728, an increase of £52,070., or 2·5%. The receipt from brandy amounted to £1,350,006., as against £1,329,639 in 1897-8, an increase of £20,367., or 1·5%. There was a falling off in the yield of the revenue from spirits under the composite heading of Geneva and other sorts of foreign spirits to the extent of £136,238. in the year 1898-9. The decrease was wholly due to the one article. "Spirits unsweetened unenumerated," on which the revenue received was less by £143,585. than in 1897-8. This decrease was caused by the diminution of the imports of grain and potato spirit from Russia in consequence of the famine that prevailed there for many months. Otherwise the minor spirit subheads produced about the same amounts as last year, Geneva showing the small but steady advance which has generally characterised it. Tea yielded a total sum to the Exchequer of £4,023,504. within the financial year 1898-9, being an increase of £155,297 over the receipt of the previous year. If this largely increased yield had represented the normal revenue of the year it would follow that the consumption had advanced by over 4%. Such, however, was not the case, the increase being chiefly attributable to the payment, at the end of the financial year, of a large cheque by a single firm.

The year 1898-9 was memorable in the history of the tobacco branch of the revenue for a considerable reduction in the rates of duty upon tobacco, an article which brings in about one-half of the entire Customs revenue. The reduction made was 6d. per lb. on the raw material, with corresponding decreases in the several kinds of manufactured tobacco, with the exception of cigars, which continue to be charged with the same duty as before—viz, 5s. per lb. In deciding to maintain the old and higher duty upon foreign cigars as a tax upon a form of luxury, the Chancellor of the Exchequer referred to the surtax which is levied upon sparkling wine for the same reason. The exact financial effect of the reduction of duty was, unfortunately, somewhat masked by large anticipatory payments in the last days of the financial year, owing to an apprehension which prevailed in the trade that the former duties might be reimposed. Thus the amount of the net receipts from tobacco in 1898-9 was £10,993,727., against £11,433,909 at the former rates of duty, an apparent reduction of only £440,182. The normal receipt of the year is, however, reckoned to be not more than £10,420,000., or about £1,014,000 less than the yield in the preceding year. There is no doubt that the tobacco trade suffered from a series of disturbing influences throughout 1898-9, and that owing to these causes, merchants were for the first eleven months of the year more cautious in effecting clearances from bond than they would have been in ordinary circumstances. The war between the United States and Spain, added to a contraction in the supplies of leaf, contributed to raise the price of tobacco to an unusual amount. Beyond the limitation of the amount of moisture legally permissable in tobacco to 30% instead of 35%, which considerably dimished the value of the reduction of duty to the trade, together with difficulties which existed in the adjustment of prices between sellers, operated to retard the full increase of duty payments which otherwise would certainly have followed on so large a reduction of duty. Still there was a very large expansion of business in the withdrawal of tobacco from bond, the quantities cleared for home consumption in 1897-8 being 68,468,000lb. and in 1898-9 77,103,000lb.—an increase of 8,635,000lb., or 12 6%. Of this excess of quantity it is estimated that something like 4,500,000lb. was due to the anticipatory payments already referred to.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Artificial Stone. S. Zientarski. 16,501. August 14.

Improvements in the Production of Colouring Matters. A. Ashworth and J. Burger. 16,527. August 15.

Improvements in Treating Oxidisable Oils to Obtain Useful Products and Compounds. R. Hutchinson. 16,537. August 15.

Reduction of Aluminium by Electrolysis. F. A. Gooch. 16,555. Aug. 15.

Bacterial Purification of Sewage. W. D. Scott-Moncrieff. 16,563. Aug. 15

Production of Nitro-cellulose. W. A E. Crombie. 15,564. August 15.

Explosives. C. H. Curtis and G. G. Andre. 16,595. August 16.

Improvements in Explosives. J. Karstairs. 16,596. August 16.

Improvements in the Manufacture of Indigo. J. C. Mewburn. 16,641. August 16.

Apparatus for Cooling Liquids, Concentrating Solutions, and the like. J. Overhoff and A. Colautti. 16,663. August 16.

Apparatus for Cooling Liquids, Concentrating Solutions, and the like. J. Overhoff and A. Colautti. 16,664. August 16.

Treating Distillers and Brewers' Bye-products. G. Souter and J. S. Souter. 16,678. August 17.

Vacuum Evaporating Apparatus for Separating Salt from Brine. G. N. Vis. 16,738. August 17.

Solution for Mixing with Paint applicable for Increasing its Bulk and Helping to Resist Heat. R. A. Parkin and G. J. Dickenson. 16,740. August 17.

Production of Soluble Potassium Salts from Felspar. J. G. A Rhodin. 16,780. August 18.

Preparing Carbide of Calcium. C. H. Worsnop. 16,763. August 18.

Treatment of Flue Dust or Fumes from Metallurgical Furnaces. F. Ellershausen. 16,802. August 18.

Improvements in the Manufacture of Gases, Gaseous Vapours, and other Chemical Compounds. G. J. Atkins. 16,810. August 18.

Improvements in Apparatus for Electro - chemical Production of Calcium Carbide. E. Grauer. 16,824. August 18.

Manufacture of Pulp or Glutinous Material from Vegetable Products. A. Robinson. 16,870. August 19.

Purification of Sewage by Biological Means. F. Tomlinson. 16,880. August 19.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

An Improvement in Electrolytic Apparatus. J. G. A. Rhodin, 47, Victoria Buildings, Manchester. Eng. Pat. 11,422. June 1, 1899.

The apparatus is designed to decompose an alkaline sulphate, such as sodium sulphate, and form copper sulphate (with the anode) and caustic soda. The anode compartment contains sulphate of sodium and a copper anode. The cathode compartment is charged with a solution of caustic soda, a layer of mercury at the bottom forming the cathode. On the current passing, the sodium sulphate is decomposed, the acid radicle combines with the anode to form sulphate of copper, while the sodium passes through the diaphragm and forms an amalgam with the mercury. In turn this is decomposed by the water present with the production of caustic soda. The caustic solution in the cathode compartment thus gradually grows in strength, while the anode becomes richer in sulphate of copper. The cell is composed of two basin-shaped vessels, the bottom of the outer one being fitted with radial ribs. The inner vessel is attached to a vertical shaft, so that it can be revolved. The bottom slopes towards the centre, and discharges into a well in the bottom of the outer vessel. This sloping bottom consists of ribs with openings between them which carry a porous diaphragm. The anode is disposed horizontally and consists of a perforated disc of copper suspended by carriers attached to an insulated collar on the central shaft. Walls project from the bottom of the inner vessel and form compartments, in which is the mercury to form the amalgam. As the inner vessel rotates, this amalgam is carried into contact with the caustic solution which occupies the rest of the cathode compartment. There are two figures.

Improved Apparatus for Extracting or Reducing Metals, or for making Metallic Alloys by Electrolysis. H. Bumb, 5, Oranienburgerstrasse, Berlin. Eng. Pat. 6,297. March 23, 1899.

The metal to be treated is in a molten state, and a molten electrolyte is employed. The melting pot is fixed in a furnace. Into the lower portion the molten metal is introduced, which in the case of producing steel, is pig iron. In the upper part of the melting pot is a funnel, which receives the molten electrolyte, in this case magnesium chloride. The bottom of this funnel is partially closed by a grid, and affords electrical contact to the molten electrolyte and to the molten pig iron, the surface of which acts as the cathode. The magnesium chloride is decomposed, the chlorine escaping, the magnesium alloying with the iron and diminishing the amount of carbon. There is one figure.

Improvements in the Manufacture of Sesqui-oxide of Chromium direct from Chrome Ore. R. W. E. MacIvor, 57, Gracechurch Street, London, and T. F. Spencer, 23 Melbourne Grove, East Dulwich. Eng. Pat. 20,681. September 30, 1898.

The finely ground ore is placed in a rotating furnace or otherwise kept in a state of agitation, and treated with hydrogen, or water gas, at a temperature of not less than 700° C. In this way, the iron oxide present is reduced to the metallic state. The treated ore is allowed to cool to about 100° C. in an atmosphere of water gas and is then transferred as quickly as possible to vats, and treated with sulphuric or other acid. The resulting liquor is removed and the residue washed with hot acid and dried, yielding a high grade chromic sesqui-oxide. The ground ore must pass a 60 mesh sieve.

Improvements in the Treatment of Sewage. F. M. and D. D. Spence, both of the Manchester Alum Works, Manchester. Eng. Pat. 16,217. July 26, 1898.

The sewage is exactly neutratised with hydrochloric acid, and the soluble solids precipitated with alumino-ferric. In the ordinary course of things, 26 to 39 cwt. of hydrochloric acid, having a specific gravity of 1·15, is sufficient to neutralise the sewage, but the exact amount depends entirely upon the alkalinity, this process naturally applying only to alkaline sewages and waste effluents. After this treatment, the precipitated solids are removed in any convenient way. The fat in the sludge is extracted by solvents, leaving a fat-free sludge, which is suitable for a manure, while the effluent is of a nature which lends itself successfully to irrigation purposes as it does not choke the land.

A PETROLEUM SPIRIT EXPLOSION.

THE inquest on the bodies of Harry Rothwell and John Lister, who died at the Bury Infirmary (on Friday) last week from injuries caused by an explosion of petroleum spirit at Crimble Mills, Heywood, owned by Messrs. J. Kenyon and Son, was held at Bury on Monday by Mr. J. Barlow, deputy coroner. Messrs. Kenyon and Son were represented by Mr. Chas. Kenyon and Mr. P. Watson (solicitor), and Mr. C. F. Wright, H.M. Inspector of Factories and Workshops, was also present.

Evidence was given showing that Rothwell was employed as foreman finisher at Crimble, and on Thursday morning, along with a youth named Turner, was working in what was known as the "soaper" house, in which was a finishing machine. Petroleum spirit was used in the finishing process of the woollen cloth manufacture at the mill. Shortly after seven o'clock a man named Thomas Heywood saw Lister, who was an engineer at the works, go from the boiler house towards the soaper-house with a piece of red-hot iron pipe. Lister fixed the pipe in a vice near the soaper-house door, and a few minutes later Heywood heard a peculiar buzzing noise. Heywood ran away some distance, and on turning round saw the building ablaze, and Lister running towards him with his clothes in flames. He extinguished the flames on Lister's clothes, and soon afterwards saw that Rothwell's clothes were also on fire. The injuries of both men and those of the youth Turner were dressed, and the men were sent to the Bury Infirmary.

Arthur Brierley, manager at the works, stated that he asked Lister how the accident occurred, and after Lister had replied once or twice that he did not know, he said "I may as well tell you. I caused this; there was no one else to blame. I did it without thought." Lister also said he was hammering a piece of red-hot pipe near the door of the soaper-house.—Witness was questioned as to the petroleum spirit used in the soaper-house.

Mr. George Rothwell, general manager to Messrs. Kenyon and Son, said that the liquid was deodorised naphtha or petroleum spirit. They had no licence to use or store it, as they did not think it was required. He could give no information as to the flash point of the petroleum.

Brierley, in reply to Mr. Wright, said there was a notice on the door of the soaper-house cautioning employes against going near the building with a light of any kind.

At this point the inquiry was adjourned for a week in order that further information might be obtained as to how the petroleum ignited; and also in order that the Home Office might be communicated with, Mr. Wright remarking that the question of the flash point of the petroleum was an important one.

Mr. C. Kenyon expressed the sympathy of his father and himself with the families of the deceased.

Selected Correspondence.

MANCHESTER SEWAGE PURIFICATION.

(To the Editor of the Manchester Guardian).

Sir,—Mr. H. Grimshaw, one of the members of the Rivers Committee of the Manchester Corporation, in noticing my letter of last week, says that my knowledge is behind recent developments of sewage treatment, and he further states that he will be glad to show me over the sewage works at Davyhulme. So far as I am concerned I have no desire to take advantage of this invitation for a personally-conducted tour. Unfortunately for myself, as a ratepayer I am too well acquainted with these works, and have for a long time viewed with apprehension not only the cost of the experiments now being carried out, but the extreme licence the Council seem to have given the Committee to gratify numberless whims and fads, the expense of which must be defrayed by the public purse. Mr. Grimshaw says my knowledge of the subject is obscure. The obscurity in reality rests with him and the other promoters of the bacterial system. No person of experience would attempt to purify 30,000,000 gallons of sewage per day by a system that is only suitable for experiments on a small scale. I have watched most carefully every development at the Manchester sewage works, and I may at once tell Mr. Grimshaw that no single move made by them has escaped my attention and consideration. The proposed scheme for Manchester is wrapped in "obscurity," and although Mr. Grimshaw has been asked frequently to furnish the ratepayers with facts and figures, he has hitherto avoided giving any which would enable ratepayers to judge for themselves as to the advisability of persevering in a scheme, the estimate of which has risen from £61,000. to £320,000. before a brick has been laid. There have been many letters published in the local papers which call for a reply from the Rivers Committee, but on no occasion have they thought fit to challenge or correct the facts and figures published. We have been told by Mr. Grimshaw that the filtering material composing the bacteria beds would last an indefinite number of years. I will therefore ask him two simple questions—(1.) Is it a fact that the bacteria beds carried out by the Sewage Committee and the three experts have been recently emptied and refilled? (2.) If this be true, why have they been refilled?

These bacteria beds have been working about one year, and if it is necessary to change the material, which was supposed to last for years, within the first twelve months the subject appears to me to be wrapped in even greater obscurity than the Rivers Committee themselves seem to suppose. Imagine the renewal of 100 acres of cinders or any other material to a depth of three feet once a year; for this is what the Manchester Corporation will have to do if the experience gained in working raw sewage to experimental beds is to be any guide for future operations. I would also ask the Sewage Committee why one of the tanks has been converted into a "sedimentation tank," and why it is being worked on what is to all intents and purposes the open septic process, and whether they are aware that the stench emitted by this particular tank is of such an abominable character that it has rendered the traversing of a public footpath which adjoins the works unbearable? Probably the enthusiasts on the Committee will tell us that this abominable stench is proof positive that the bacteria are actively liquefying the solid organic matter contained in the sewage. If the stench is to be taken as a measure of the amount of work executed by these organisms, then I am bound to admit that they are actively engaged and right merrily accomplishing the difficult task allotted to them. But at what cost for mere experiments which will not result in one particle of service or benefit to the ratepayers of Manchester.

Yours, &c.,

August 23, 1899 Experience.

(To the Editor of the Manchester Guardian).

Sir,—Your correspondent, Mr. Grimshaw, is in error when he presumes that my letter was written in ignorance of what has been and is being done in reference to the Bacteriological treatment of sewage. The forecast which caused me to say "forewarned is forearmed" was not due to any obscurity of vision in respect to what is taking place round and about us, not excepting even what is being done at the Manchester Sewage Works, a knowledge of which dispenses with the necessity of my accepting Mr. Grimshaw's invitation to accompany him on a tour of inspection. If Mr. Grimshaw has confidence in the working of the scheme he champions, why does he not refute and repudiate the adverse criticisms and statements which have been publicly made? Tell us, for instance, that it is all nonsense presuming that crushed clinkers are practically unprocurable, and inform us why it is nonsense so to presume; also let him enlighten us as to the cost of scraping 100 acres of filter beds and keeping them in order. Ratepayers are expected to tacitly acquiesce in the spending of half a million of their money on a scheme with nothing more satisfactory to recommend it. Let us have something down in black and white from Mr Grimshaw or any other member of the Sewage Committee, then the question can be better weighed by the public mind. The fact that a passable effluent has been obtained on a small scale at the sewage works by the use of an open septic tank and a filter bed is not of itself sufficient to warrant further expenditure; a very much better effluent on the same scale can be obtained chemically. No one wishes to dispute the fact that sewage can be purified by natural agencies. Bacteria have purified sewage ever since there was any sewage to purify, and attempts have been made all over the kingdom to show that a practical use can be made of this knowledge. It was worth trying, but those who saw furthest predicted the failure which was bound to follow any attempt to force nature. A bacteria bed takes time to get into condition. The action which brings this about goes on after it is in condition; consequently after a further period it becomes gorged, and there is nothing for it but rest or renewal of the material. Another view of this bacteriological treatment—this concentration of natural agencies—presents itself. From a sanitary point of view is it safe? The unpleasantness, amounting to a nuisance, is a certainty if the Davyhulme experience is a guide; but worse than unpleasantness may occur. Supposing typhoid germs are released from the sewage and conveyed in the air or conveyed through insects which generate and feed about these tanks and beds, how about those in the immediate neighbourhood? It would be interesting and reassuring to know that there has been no indication of typhoid or blood poisoning in the immediate neighbourhood. Perhaps Mr. Grimshaw may be able to give us some enlightenment of the subject. From whatever point this scheme is viewed it is objectionable. No statement of recommendation has yet been substantiated, and until this is done I must pin my faith to something which is less vague.—Yours, &c.,

Anti-Bacteria.

(To the Editor of the Manchester Guardian).

Sir,—Your correspondent Mr. Grimshaw is very kind in repeating his invitation to me to visit the sewage works at Davyhulme. In my letter which you were good enough to publish in your issue of yesterday I think I gave abundant evidence that such a visit is altogether unnecessary. I am in constant touch not only with the work; but with everything that is attempted there in the way of bacterial experiments. If Mr. Grimshaw would answer simple questions such as I asked yesterday, and give the ratepayers definite and reliable information, I am sure he would give greater satisfaction. Why it should be necessary for me to disclose my name before any information can be obtained from Mr. Grimshaw or any of his Committee, I fail entirely to see. Mr. Grimshaw has frequently responded to letters published in the local press, but in every instance he has carefully refrained from giving any information or facts which would assist the ratepayers in forming an opinion upon the advisability of continuing the expensive and abortive bacterial experiments We are all waiting to hear the result of the Local Government Board inquiry, and we are all anxious to know what has become of the scheme of 27 acres of bacteria beds estimated to cost £61,074. We are also anxious to know what has become of the latest scheme of 60 acres estimated to cost £320,000., and which was to effect a saving to the ratepayers of £16,000. per annum in chemicals alone. With the object of throwing some light on the matter, will Mr. Grimshaw tell us how much short of 100 acres will really be required by the Local Government Board, and whether a single penny will be saved in the annual working expenses? My personal experience prompts me to say that if the Local Government Board passes the scheme with 100 acres of bacteria beds they will only do so on the Corporation undertaking to use chemicals for the precipitation of the sewage as hitherto.

Yours, &c.,

August 25, 1889 Experience.

(To the Editor of the Manchester Guardian).

Sir,—The extraordinary conjectures and assumptions of your two correspondents to-day render it more evident than ever that the very best thing they could do would be to accompany me to the Sewage Works. I again cordially extend this invitation. A refusal to accept this or to allow the public and myself to judge with what amount of authority they write is not encouraging. Whether a couple of anonymous writers of the Rivers Committee, their three highly skilled scientific men, and the Mersey and Irwell Committee together are likely to be correct in their views must be left to your readers. I should advise your correspondents to refrain from conjectures, assumptions, and inaccurate statements, and wait until the Council have the report of the Local Government Board and that of their experts before them. We can then argue from a basis of ascertained facts.

I am, &c.,

Clayton, August 26, 1899. Harry Grimshaw.

Legal Intelligence.

HIGH COURT OF JUSTICE.

QUEEN'S BENCH DIVISION.

(Before Mr. Justice Darling and Mr. Justice Phillimore).

BOWER AND CO. AND BLACKWELL AND CO

This was an application to set aside the award which was made by the umpire, on the ground of misconduct of one of the arbitrators. Mr. Rufus Isaacs, Q.C, and Mr. Ralph Bankes appeared for the applicants, instructed by Messrs. Lowless, Nelson, King and Nelson. Mr. Pollard appeared for the respondents, instructed by Messrs. Jenkins, Baker and Co.

Mr. Justice Darling, in delivering judgment, said: Although several points have been raised, it appears to me that the most serious point made against the arbitrator, who is called Mr. Bower's arbitrator—Mr. Devitt—is this: that somehow or another he procured a slip, which is called Domeier's slip, which was really a document giving the opinion of Domeier as to what was the proper market price of this commodity at a particular time, and that slip he did not communicate to the arbitrator appointed by the other side; he did not communicate it to the party on the other side, Messrs. Blackwell's, but he used it himself, and when Bower, on whose behalf he was acting, was called and asked to give evidence, Bower declined to give evidence and said this: "I am not going to give evidence, I will not answer any questions; I am content to rest my case upon the documents in the hands of my arbitrator and upon the conversation that I have had with my arbitrator; I have explained my case to him and he has got certain documents, and I rest my case upon that, and I will not give evidence at all; I will not explain anything; I will say nothing." And he says further than that: This I do by the advice of the person who, to my mind, is grotesquely enough spoken of as an arbitrator. Thereupon, the other arbitrator, Mr. Scott, does not know what is in this document at all. He never sees it. I do not gather for certain that he ever became aware of the nature of it until after he and the other arbitrator are said to have differed and the umpire had been appointed. But what was done with it was this: The one arbitrator having somehow got it into his possession, either through his own clerk, or because it was handed to him by Bower, or in some such way, hands it to the umpire. Now that is a document which has never been seen by the other side and as to which Bower has refused to give any explanation whatever, because his refusal to give any explanation or evidence referred to that as well as other matters, because he refused to give any evidence or explanation. That is handed to the umpire, and for all we know it may have had a considerable effect upon the umpire, it is just the kind of thing that would have; but whether it had or had not, I do not think is a matter which this court will enquire into, if it comes to the conclusion that it ought not to have been handed to the umpire at all. The conclusion I come to is that it certainly ought never to have been given to the umpire.

Now, what is Mr. Pollard's answer to all this? His answer to all this is: Well, you knew the kind of tribunal you were going before These arbitrators do not profess to be impartial; they are advocates, and raged advocates, because an advocate does not go about collecting evidence; and yet it is said here by Mr. Devitt, by a distinct statement in his affidavit, that he was not even content with the evidence that his own client gave him, or what was put in, but that he collected more; and then because one of the arbitrators has got it, and it is given to the umpire, then it is said: Oh, well, you have waived all this because you consented that the umpire should decide upon what was in evidence before the arbitrators. I do not think that this document ever was in evidence before the arbitrators at all. It was no more in evidence before the arbitrators to my mind than the watch in Mr. Devitt's pocket was in evidence before the arbitrators. One of the arbitrators had got it, and one of the arbitrators gave it to the umpire, but that it ever was, in any proper sense, in evidence, I am at a loss to see. Then Mr. Pollard's answer is: Well, look, these people are business people, and they belong to Chambers of Commerce, and some of them are past presidents of those august bodies, and they expect things to be done in this way. Shortly, it is this, you have made your bed and you must lie upon it. I am not sure that that would be a good answer in any case, but I do not think that there is any evidence that Blackwell & Co. or Mr. Scott consented to the proceedings being gone through in this way. Therefore, it seems to me that this award, which is arrived at by the umpire, upon this kind of process having been gone through before the arbitrators, cannot possibly stand.

I should like to say one word further. It may be due to my want of sufficient acquaintance with the ways of what are called business people, but to my mind it is an abuse of language to speak of people of this kind as arbitrators at all. When I find that after a certain time they meet and are said to have differed—and Mr. Pollard addressed our attention to the point at which they are said to have differed, as though there was some difference in their conduct before that time and after—all I can say is there was never a moment when Mr. Devitt affected to believe or disbelieve that he could agree with the other arbitrator, Mr Scott—not for a moment. He is acting all along as something far more than an advocate. From the very first he is a partisan of the extremest description, and how any people, Chamber of Commerce business people or anything else, can tolerate tribunals of this description if, as is said, the advocates act in this way, I am at a loss to understand. I can only hope that this was not a common-place ordinary sort of arbitration, and that something was done which would appear as scandalous to business men as it does to myself.

For my own part I can only come to the conclusion, without the slightest hesitation, that the award was procured owing to the misconduct of one of the arbitrators, Mr. Devitt, aud that it cannot possibly stand.

Mr. Justice Phillimore: I am of the same opinion and substantially for the same reasons, and I have only a few words to add.

I am of the same opinion the document called the "Domeier slip" was never put in evidence and never ought to have been submitted to the umpire. I am quite aware that arbitrators, like foreign courts, use certificates, statements and papers (and not improperly, I dare say), from parties or from men of position instead of oral or sworn testimony, but the very fact that that class of document is let in makes it necessary that the other side should be able to examine and sift it, and one condition of receiving it is that it should be communicated first of all to the other side and secondly to the full court. Now with regard to this Domeier slip, how it came into existence nobody knows. Some of the people think it was procured by the over zealous action of Mr. Bower's arbitrator, Mr. Devitt, but some of the people seem to think it was procured by Mr. Bower himself and then given to Mr. Devitt. Whatever happened, it reached Mr. Devitt's pocket and knowledge before ever the arbitration began, and as I understand Mr. Scott's affidavit—and I see nothing in contradiction of it in the others—it was never mentioned to Mr. Scott till after the arbitration closed except the discussion. Now it was not enough to mention it to Mr. Scott. It ought to have been mentioned to Mr. Blackwell, so that he could deal with it; and it also ought to have been shown to Mr. Scott. In that state of things it was not a document in the case and not one which ought to have been submitted to the umpire without the consent of the other side. So far from it having been submitted to him with the consent of the other side, we know from Mr. Scott that a number of documents were handed in by Mr. Devitt, apparently in an envelope or at any rate without saying what they were and he insisted upon handing them in although Mr. Scott protested. That alone I think would be enough to set this arbitration aside.

It is not necessary to go further, but I am inclined to go further, and say that here the misconduct of both arbitrator and party at the first hearing is also enough to set this award aside. The Umpire's jurisdiction does not arise unless the arbitrators disagree. We all know that arbitrators of this description are partisans to a considerable extent. At the same time they are fair minded men, and though they approach the matter with strong sympathy for their own side, yet it is very well known they are capable of conviction sometimes, and, at any rate, if not complete conviction they often yield a point, and very often fair minded arbitrators do agree and do not find it necessary to call in an Umpire. Now Mr. Bower had stated his full case in private to his arbitrator. It is said that is done, and it may be so when there are no advocates for the parties before the arbitrators. But, having done that, that statement should be made by the one arbitrator to the other arbitrator in order that the other arbitrator may test it. He may say at once, "What a cock and bull story your man has told you. Why, at that very moment when he says so and so was the price in the market, I was myself buying, and I know it is all nonsense." At any rate the statement ought to have been communicated, and, having been communicated it ought to be submitted to test, and the obvious test is to cross-examine and ask questions about it. It was most improper for Mr. Bower to refuse to answer questions, and, if there are degrees of impropriety, it was still more improper for his arbitrator, Mr. Devitt, to advise him before hand and at the same time not to answer. Therefore that made the arbitration absolutely improper, and, as that arbitration ought to have been proper, I am not sure that the party who has made that arbitration improper can avail himself of an umpirage which never would have existed but for his impropriety. I invited Mr. Pollard's attention to that matter. I find no authority one way or the other upon it. If it is new matter I am quite prepared so to hold; but it is quite enough to decide this matter upon the other grounds which my brother Darling has gone into, and I quite agree the non-communication of this document which was never in evidence and never submitted to the arbitrator, although the Umpire may not have acted upon it, it is quite sufficient to set the award aside.

Mr. Bankes: Then the award will be set aside with costs?

Mr. Pollard: I should like to say a final word to your lordships upon that. Your lordships do not find any misconduct on the part of the umpire. I quite concede if a document has been used which

ought not to have been used it is perfectly immaterial whether it affected the umpire's or arbitrators' minds. I do not raise that contention for a moment, but there is nothing in the reasons either of your lordships have given which affect the impartiality or fairness of the umpire, and your lordships have under section 10 of the Arbitration Act this power :—" In all cases of reference to arbitration the court or a judge may from time to time remit the matters referred, or any of them, to the reconsideration of the arbitrators or umpire." Your lordships know that it is common ground that there is no dispute as to the liability in this case, it is a mere question of *quantum*, and it may be that the umpire has taken into consideration Domeier's slip to a certain extent. The price is always subject to a deduction of £2. for each drum—£2. a ton—so that in any case that forms a rigid factor in taking the account. If your lordships were to remit it, as I may say is very often done, with a direction to the umpire to disregard entirely any reference at all to Domeier's slip, and that he should reconsider the matter, because that is what your lordships will remit it for, namely, for reconsideration, it is a mere question of assessment of damages. He would then no doubt hear the evidence of brokers and dealers in the trade, because your lordships see setting aside this award still leaves the arbitration clause in the contract open. I mean we have to go to another arbitration, and, therefore, it would be a great avoidance of expense, as they admit a liability to pay a possible £257. They say that this amount is too much, or rather they do not say that it is too much, but that it has been wrongfully arrived at. There is plenty of authority for sending it back to the umpire with directions. The only other course I suggest, if your lordships should think that anything in the conduct of Mr. Blagden makes him an unseemly or an unfit tribunal, is that your lordships should say that this matter should be referred—there is no chance of our agreeing upon a single arbitrator, I am afraid—to a single arbitrator.

Mr. Bankes :—I can meet my learned friend, Mr. Pollard, in this way, that Mr. Blackwell will make this wide offer, that he is quite willing to go to arbitration before any single member of the Bar.

Mr. Pollard :—What does a member of the Bar know about it ?

Mr. Bankes :—We have had enough of these lay tribunals.

Mr. Justice Darling :—Is that all you have to say, Mr. Pollard ?

Mr. Pollard :—Unless the parties can agree upon a competent single arbitrator I suggest that, failing agreement say within three days or a week, it should be left to the president for the year of the London Produce Brokers' Association to name a single arbitrator.

Mr. Justice Darling :—We need not trouble you, Mr. Bankes. In this case it seems to me that with regard to Mr. Blagden, the Court has nothing to say against him only this, that Mr. Blagden accepted this document. Although it was objected that he should receive it, he did receive it and look at it.

Mr. Pollard :—There is no evidence of that, my lord.

Mr. Justice Darling :—Yes there is evidence. I do not think we can properly send it back to him with an instruction not to be influenced by this, that, or the other piece of evidence. We should have to send it back to him at large if we entrusted him with it at all ; we could not send it back to him hampered by telling him what to look at and what not to look at. I think the proper thing to do is simply to follow the ordinary and usual course, and that is, that the award be set aside.

Mr. Bankes :—And with costs ?

Mr. Justice Darling :—Yes, with costs.

Mr. Bankes :—If your lordships please.

The Columbia Chemical Company.—The Pittsburgh Plate Glass Company's venture into the manufacture of soda ash, has elected the following officers : President, W. L. Clause ; vice-president, W. D. Hartupee ; secretary, H. G. Chisnell ; treasurer, Edward Pitcairn, who with C. W. Brown form the directorate. A. Pitcairn was elected comptroller and H. A. Gault, late with the Michigan Alkali Company, manager. It is said that the company will build a large plant for the manufacture of soda ash, to cost $3,000,000, probably at Barberton, O.

Trespassing on an Explosive Factory.—Before the Truro magistrates on Saturday, Samuel Haslack, a teacher in the Polytechnic Institute in London, was summoned at the instance of Nobel's Dynamite Company for having trespassed on their works at Perranporth on the 21st August Mr. R. Dobell prosecuted, and pointed out that defendant was discovered wandering within the danger area of the Perran works. It was necessary to prosecute, for it was particularly dangerous for outsiders to enter the works. Defendant contended that if he trespassed it was absolutely involuntarily and unconsciously. If he wanted to be blown up he could have achieved this end in his laboratory at home. The magistrates fined defendant £1. and costs. Replying to defendant, the Clerk informed him that he could appeal if he paid the fine and costs and entered into recognisances to prosecute an appeal.

Reports of Companies.

MAYPOLE, LIMITED.

An adjourned meeting of the shareholders of Maypole, Limited, was held recently at Holborn Restaurant, Mr. V. M. Holt Beaver presiding.—The Chairman stated that the resolution of the preference shareholders had been carried by the requisite majority. The adjournment was purely formal, for the purpose of voting on the following resolution : " That it has been proved to the satisfaction of the company that this company cannot, by reason of its liabilities, continue its business, and that it is desirable that the same should be wound up voluntarily, and that the company be wound up accordingly ; and that Mr. George Browning, of 58, Coleman-street, in the City of London, be, and he is hereby, appointed liquidator for the purpose of such winding up."—Mr. Deakin (managing director) seconded the motion.—Mr. R. D. Harvest said he wished once more to warn the shareholders against the great mistake of allowing this resolution to pass. It was absolutely impossible, under the present board of management, to work the company at a profit. He was not opposed to the liquidation of the company, nor to its reconstitution, so long as preference and ordinary shareholders had an opportunity under proper management of regaining their property ; but to pass the resolution as it was now proposed would mean an absolute waste of money, and rather than contribute the money now asked for he would personally prefer to destroy his own shares. He should move an amendment that the resolution be not agreed to, and failing to carry that he would demand a poll ; and if he lost on the poll it was his intention to confer with other shareholders with a view to enter proceedings in the Court of Chancery.—Mr. W. H. Fox seconded the amendment, and, after some discussion thereon by other shareholders present, the amendment was put to the meeting, and the Chairman declared it lost.—The Chairman then put the resolution to the meeting, and declared it carried ; but at the same time he called for a poll, the result of which was that the resolution was agreed to. The Chairman then proceeded to move a resolution, " That it is desirable to reconstruct the company ; " he also proposed another resolution authorising the liquidator to transfer the assets to the new company.—Mr. Deakin (the managing director) seconded the motion, which was agreed to, but a poll was demanded, with the result that the resolutions were carried unanimously.

F. STEINER AND CO.

The Directors report that the result of the second year's working of the business shows a net profit, after providing £24,623. for repairs and depreciation of machinery, of £100,622 To this has to be added the balance of £11,096. brought forward from last year, making a total available balance of £111,718. After making payment of twelve months' interest on the mortgage debenture stock and on the preference shares the balance to the credit of profit and loss account is £71,218. The directors have already paid on 31st January last an interim dividend on the ordinary shares of 6 per cent. per annum, absorbing £14,250 , and now recommend the payment of a dividend for the second half year at the rate of 10 per cent. per annum, absorbing a sum of £23,750., making 8 per cent. for the year, and leaving a balance of £33,218. The directors recommend that this balance be utilised to pay off the whole of the formation expenses—£5,231 ; to place the sum of £15,000. to revenue reserve account, and to carry forward the sum of £12,987. to the following year. The directors regret to report that, owing to failing health, the Marquis de Jaucourt feels compelled to resign his position of chairman and director of the Company, and they recommend to the shareholders the appointment of his son, the Comte Pierre de Jaucourt, to the board of directors. The third ordinary general meeting will be held at the registered offices of the company, Church Works, Church, on September 6th. The ordinary share-transfer books will be closed from August 30th till September 6th, both days inclusive.

DIVIDEND.

Bowman, Thompson and Co., Ltd.—The directors have declared interim dividends at the rate of 7½ per cent. per annum on the ordinary shares and 7 per cent. on the preference shares, payable, less income-tax, on August 31st.

The Magnalium Co.—We are informed that a syndicate called the Austro-Hungarian Magnalium Company, was established on the 16th ult. by Messrs. E. Breslauer and Co., of 7, Whittington-avenue, London, and Unter den Linden, Berlin, to work the patented invention " Magnalium " for Austro-Hungary.

Forthcoming Publication.—The technical literature referring to essential oils is of a limited character, and we are advised that a work entitled " The Chemistry of Essential Oils and Artificial Perfumes " is now in the press, the author of which is Mr. Ernest J. Parry, B.Sc. It will be published in a few weeks by Scott, Greenwood, & Co.

THE SILESIAN ZINC INDUSTRY.

IN the production of crude zinc or zinc ingots there were employed in the Silesian district during 1898 a total of 24 smelting works, having altogether 132 ordinary or coal burning furnaces, with 3,530 retorts, and 421 gas furnaces with 17,061 retorts. These furnaces treated 499,173 tons of zinc ore, of which 265,326 tons were calamine, 232,641 tons zinc blende, and 1,206 tons zinc oxide, dust, zinc ashes, and other waste products collected from the furnaces. The production of metallic zinc from these ores was 99,011 metric tons, valued at 36,651,000 marks; 13¾ metric tons of cadmium, valued at 124,650 marks; 1,333 metric tons of lead, valued at 335,545 marks. The average zinc saved from the ore worked was 19·8 per cent. The average production of zinc per retort was 471 kilos. The average consumption of coal was 2·16 tons per ton of ore treated. The total coal used was 1,075,956 metric tons; and there were also used 29,000 tons of clay for the retorts. The average number employed in the zinc works during 1898 was 5,914 men and boys, and 1,674 women. According to statistics furnished by the Oberschlesischer Berg und Hutten-mannsche Verein, the average yearly earnings, taking a period of sixteen years—were 895¾ marks for males and 346½ marks for females. In the production of rolled zinc or zinc sheets, there were five mills engaged in 1898. These works employ 753 men; their total output being 39,863 tons of sheet zinc, 310 tons lead, and 498 tons of other products. These works consumed during the year 40,977 metric tons of crude or ingot zinc.—*Engineering and Mining Journal.*

SICILIAN CHEMICAL AND SULPHUR TRADE.

PALERMO.

SULPHUR is the chief chemical product of Sicily, but there are many other items of interest in the imports for 1898, of which the following is an abstract :—

Articles.	General Total. Kilos.	From United Kingdom. Kilos.
Linseed oil	90,664	85,876
Potash and caustic soda	334,986	270,956
Carbonates, potash and soda	244,677	136,696
Chlorates	83,856	3,260
Nitrate of soda	16,609	13,480
Sulphates, ammonia and copper	406,682	467,124
Paraffin wax	39,955	30,089
Gums and resins	38,587	14,550
China clay and chalk	872,425	866,810
Cement	1,212,554	

Sulphur.—In the extraction alone of this mineral some 30,000 people are employed. During the past two years the production of ore has been as follows :—1897, 3,092,382 tons ; 1898, 3,163,146 tons.

In 1897 there were 642 mines in activity, whilst in the year 1898 the mines in activity reached a total of 695. In 1899 the total mines and output will again increase.

The exports of sulphur in 1897 amounted to 427,823 tons, whereas in 1898 the figures rose to 462,393 tons, which is principally attributed to the demands of the United States owing to the war with Spain

The increase in the exports is also due to the demand for sulphur in the manufacture of wood-pulp, and for treating vines.

The stock of manufactured sulphur on hand on December 31st, 1898, was about 235,022 tons.

The prospects of the sulphur trade is a delicate subject to deal with ; experts have their different points of view, but it may be safely said that there is too great a tendency to over-produce. Their own permanent welfare seems to be the last thing the Sicilian sulphur mine-owners think of in comparison with immediate sales. The conditions of the leases of the mines have also much to do with this unsatisfactory state of things. When a leaseholder can only obtain a lease for 10 years, it is natural that he should hasten the output and its quantity as much as possible. The one thing which he wants is sulphur, and as much of it as possible. The royalty paid to the landowner is about 20 per cent. of the produce, and is too great to enable the leaseholder to work the mine as it should be worked. When the 10 years lease are over the landlord takes back his property if the mine has been a producing one. The mining laws of Sicily differ from those in force in the rest of the kingdom of Italy.

The principle ports from which sulphur is exported in their order of importance are :—Port Empedocle—the port of the province of Girgenti—exported 207,260 tons during 1898 ; Catania exported 130,192 tons ; Licata, 103,257 tons ; whilst Palermo only shipped some 13,000 tons.

The United States were the principal buyers of sulphur in 1898, 142,553 tons being shipped thence. France took over 95,000 tons ; Continental Italy, 60,919 tons ; Germany, about 28,000 tons ; and the United Kingdom and Malta, 26,487 tons.

Of the shipping employed in carrying the sulphur trade the majority were, as heretofore, under the British flag.

The quantity of *rock salt* produced in Sicily during the year 1898 was 12,750 tons valued at about 4,500*l.*

The evaporation of *salt* in pans is one of the principal industries of the province of Trapani. During the year 1898 there were 57 establishments employed in the manufacture of salt, and the production amounted to 243,050 tons, valued locally at about £70,000. Owing to the Spanish-American war there was a dearth of small Nova Scotian and Newfoundland vessels to take the produce to the banks for the cod-fishing season.

The *sumach* trade is almost entirely a Palermo industry. A combination has been formed to handle the output for the next five years, during which period the present good marks will have disappeared. The result promised to the industry is better prices for the crop, which will naturally be at the expense of the consumer.

In considering the figures given below as those of the total export trade in this article, it is necessary to note the item "stinco" amongst the "imports." During 1898, 3,596,158 kilos. of stinco were imported from Tunis. This article is one of the principal adulterants of sumach.

The following figures obtained from the Palermo Customs Department show the amount of sumach exported during 1898, and the countries to which this article of commerce was exported :—

Country to which Exported.	Quantity. Kilos.
Great Britain	14,927,124
France	10 709,840
United States	4,450,395
Germany	2,248,082
Belgium	1,555,142
Austria-Hungary	1,383,604
Holland	1,189,524
Miscellaneous	657,251
Total, 1898	37,120,962

Of the above total export of sumach, 16,452,826 kilos. were unground sumach, and 20,668,136 kilos. of ground sumach.

It is not at all unlikely that an attempt on the part of the sumach syndicate to force its prices on the market may result in the employment in the dyeing trade of materials which can be substituted for sumach. In the United States Chrome is now being largely used where sumach was formerly employed.

CATANIA.

Exports of sulphur from Catania amounted to 88,371 tons, as against 90,590 tons in 1897.

The operations of the Anglo-Sicilian Sulphur Company, Limited, which controls about 70 per cent. of the entire Sicilian production, continue to give satisfaction to the producers and refiners at Catania. The average price for crude sulphur, taking best thirds as a basis, was about £3. 14s. 6d. per ton f.o.b. Catania.

LICATA.

The output of sulphur, or, properly speaking, the quantity of sulphur conveyed to Licata during the year under report, amounted to 102,636 tons, which, added to the 70,857 tons remained stored up to December 31, 1897, formed an aggregate quantity of 173,493 tons, 103,558 tons of which having been shipped during last year, a stock of 69,935 tons remained on December 31 last.

The following table shows the sulphur stocks remaining at the end of each year from 1896-98 :—

Quality. Licata, unmixed—	Quantity per respective Year. 1896. Tons.	1897. Tons.	1898. Tons.
2nds, best	315	169	929
,, good	12,764	8,050	6,672
,, current	16,300	24,757	16,754
3rds, best	11,067	13,346	18,754
,, good	9,835	13,024	20,560
,, current	9,084	11,511	6,266

Comparing the above figures for the year under report with those of the following table :—

Quality. Licata, unmixed—	Quantity. Tons.
2nds, best	70,488
,, good	926
,, current	1,223
3rds, best	17,982
,, good	5,537
,, current	7,402
Total	103,558

It follows naturally that Sicily, as far as can be judged from this Vice-Consular district, never exports the true and correct qualities, as stated in the bills of lading.

To support this it is sufficient to say that besides the above qualities, there are in the market the 3rds uso, a quality between the 3rds best and 3rds good, and the sterri, another quality of brimstone unmelted, and, consequently, very impure; and that the article known as uso is generally sold by the store-keepers much adulterated. On the other hand, speculators at Palermo and Messina sell according to the qualities required from abroad.

Sulphur carried by British vessels amounted last year to 34,457 tons, as against 22,659 tons in 1897, a rise of 11,798 tons.

Of the 3,244 tons of sulphur exported to Great Britain, only 2,450 tons were carried by British vessels and shipped to Canada.

Trade Notes.

The Resin Market.—There has been an advance in the cost of all grades, but especially in the three top grades, which are now unobtainable, except at considerably higher prices than prevailed in the spring. As the demand has continued good, still higher prices are predicted. There has been an extensive business in medium and low grades, and even common resin is not in excessive supply and is quoted higher. There has been a fair demand for all qualities in London, where "pales" are very scarce and firm. No change in the position of low grades is, however, reported from Liverpool, nor is any apparently expected in this case, unless it be a decline of prices. "Pales," however, show a marked improvement in that market also; full prices are being obtained for all business done, and inquiries are plentiful. The Hull market has been very quiet.

Explosion at a Brewery.—Early on Saturday morning last, a violent explosion, resulting in considerable damage to property and injury to persons, occurred at the Wiltshire Brewery Company's brewery, Hackney Road, London. Several of the employés in the immediate vicinity were injured, one so severely as to necessitate his removal to the London Hospital. Between seven and eight o'clock several of the brewery employés were engaged in the malthouse, attached to the brewery, grinding malt. There was nothing in the working of the machinery indicative of anything wrong, but suddenly a terrific explosion occurred. The workmen were thrown violently to the ground, and the roof of the malthouse was blown out. Nothing definite is known as to the cause of the explosion. It is, however, believed to have been brought about by some grit getting into the machinery.

East India and Java Indigo.—From cables just to hand from Calcutta, Messrs. Millward and Co. report that prospects for the second cuttings are much worse in Tirhoot and Chuprah, whilst incessant rains in Behar have practically ruined the Khoonties. The latest news from Benares and the North West Provinces is also unfavourable, and estimates are now further reduced to 85,000 to 90,000 maunds, which outturn would be, with one exception, the smallest crop for twenty-five years. The London market position has now completely changed and an active business is being daily transacted, chiefly upon Continental account, at an advance of threepence to sixpence per lb. Home trade buyers remain somewhat passive, or otherwise the advance would be even more marked.—Java Indigo.—At the recent sales in Amsterdam all that was offered met with ready buyers at fourpence to sixpence above valuations, and stocks are now reduced to 1,700 chests, against 7,300 chests last year.

Fire at a Chemical Works.—Some excitement was occasioned at St. Helens on Wednesday afternoon by an alarm of fire at the Hardshaw Brook Chemical Works, owned by the United Alkali Co. The news immediately brought to mind the disastrous explosion which occurred in May last, and, as it leaked out that the fire was in the chlorate house, fears were entertained in some quarters that another disaster was impending. The Corporation Fire Brigade, with the steamer and hose carriage, were quickly at the works, but on their arrival their services were not required, as the outbreak had been suppressed. The fire brigade were immediately summoned as a matter of precaution, but in the meantime the flames were extinguished with buckets of water. The damage, fortunately, was very slight. At no period of the incident was there the slightest probability of an explosion similar to that which wrecked the town a short time ago.

Department of Science and Art.—There has just been issued a list of candidates to whom Royal exhibitions (art) and local scholarships (art) have been awarded, 1899. The following receive Royal exhibitions:—John Frederick Pettinger, art student, Royal College of Art; George Edward Kruger, art student, Bath; Francis Ernest Hiley, designer, Bristol, Queen's-road; Benjamin Clemens, art student, Holloway (Camden); Thomas Cantrell Dugdale, art student, Royal College of Art; Margaret Jane Jameson, art student, Edinburgh, Royal Institution; Alexander Somerville, art pupil teacher, Edinburgh, Royal Institution; Peter Chisholm, art student, North Shields (Albion-road art class); Leta Rosina Roff, art student, Holloway (Camden); Alfred Ernest Smith, art pupil teacher, Lydney. The following receive local scholarships:—Charles Henry Broughton, art student, West Bromwich; Helen Matilda Pike, art student, Edinburgh (Heriot Watt College art class); Malcolm Osborne, art student, Bristol, Merchant Venturers; Ethel Sissy Biddle, art student, Brighton; Ethel Maud Hedgland, art student, Dover; Edgar Everard Atkins, art pupil teacher, Brighton; James Alexander Stevenson, art pupil teacher, Chester; Horace Wooller, art student, Brighton; Percy Taylor, art student, Rochdale; Thomas John Clapperton, photographer, Galashiels; Forbes Maitland Moir Clark, art pupil teacher Aberdeen, Gray's; James Philip Samuel, art pupil teacher, Aberdeen, Gray's; Nathaniel Sparks, art student, Bristol, Queen's-road; Henry Mawdsley, house painter, Halifax; Thomas Norman Ault, art student, West Bromwich; Harry Arthur Lake, art student, Nottingham; Ethel Mary Hodgkinson, art student, Croydon; Augusta Mary Warren, art student, Royal College of Art; Arthur Bowmar Porter, art student, Royal College of art; Alexander Millar, achitect's draughtsman, Galashiels.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are quiet at 8d. for 90's and 10½d. for 50/90's. Carbolic acids are strong, but there is no change in prices. Naphthas keep steady—solvent is quoted 1s. 2½d. and crude 4½d. Creosote is in good request at full values. Tar is inclined to be easier. Anthracene remains as last quoted. Pitch is still quoted 34s. 6d. to 35s., f.o.b. East Coast, and 31s. West.

Sulphate of ammonia is dull. For forward Beckton price is now £11. 17s. 6d. Buyers are very loth to pay anything like full values for future delivery. Nearest prompt values are:—London outside makes £12. 6s. 3d., Hull £12. 3s 9d. to £12. 5s., and Leith £12. 5s. Nitrate of soda steady.

MISCELLANEOUS CHEMICAL MARKET.

We have to report a fairly satisfactory week, business generally having been good. Bleaching powder continues in moderate request, and price is unchanged. Caustic soda moves steadily at the advanced prices, which are well maintained. Saltcake does not improve, and prices remain in buyers' favour. Chlorates of potash and soda sell readily at former rates. Nitrate of soda steady at 7s. 6d. Sulphate of copper active at £23. 10s. to £23 15s. Acetates of lime dull, but without quotable change. Acetic acids in the same position. Sugar of lead, white (foreign), is quoted £21. 15s., c i f.; English, £26. Acetate of soda strong and advancing; to-day's value we make £13. 10s., delivered. White powdered arsenic appears a shade weaker, and there is not much business passing; £18. 10s. to £18. 15s. at Garston are to-day's quotations. Borax flat at £16. per ton. Prussiate of potash meets with a good demand at 7¾d. to 8d. per lb, according to quality. Muriates of ammonia steady at former rates. Tin salts continue very firm, but there is no quotable change. Sulpho-cyanides in somewhat better request, and prices are stronger. Carbolic acids remain steady, but there is not much actual business being done; 60s. crude, 2s. 1d per gallon, and crystals, 40s., 7½d. per gallon are to-day's quotations. The market for fine chemicals is quiet.

REPORT ON MANURE MATERIAL.

There continues a quiet market, but notwithstanding the comparatively small business passing, prices are well maintained all round. The quotation for 77/80% Florida phosphate rock, delivered good United Kingdom ports, is 8¾d. to 9d. per unit, with very little offering for this and next year. Tennessee rock may be had at 7d. to 7¼d. per unit, according to guarantees, delivered United Kingdom. The quotation for 58/63% Algerian remains 6¾d. per unit for 1900 shipment. East India bone meal is again a shade easier, and £5. per ton, ex quay would probably be accepted for August-September shipment. For October-November or November-December shipment, former prices are still required.

Nitrate of soda is quiet at 7s. 9d. to 8s. per cwt. for good up to fine quality on spot.

THE METAL MARKETS

London, Wednesday.—Pig iron steady: Scotch Warrants closed at 67s. 4d., Middlesbrough, 65s., cash, and hematite, 71s. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s, closed at £76. 11s. 3d. to £76. 16s. 3d., cash; and £76. 18s. 9d. to £77. 3s. 9d. three months. Tin, variable: Straits closed at £139. 15s od to £140 5s. od. cash, and £140 5s. od. to £140. 15s. three months; Australian, £140. 10s.; English ingots, £144. Lead, firm: Spanish, £14. 17s. 6d. to £14. 18s. 9d.

English, £15. 2s. 6d. Silesian spelter, ordinary, £22. to £22. 5s. Nickel, 1s 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 12s 6d.; second hands, £8. 12s. *Copper Shares* steady: Cape, 3 1/16 to 4 5/16; Copiapo, 3 11/16 to 3 13/16; Libiola, 1¾ to 2; Mason & Barry, 3⅝ to 3⅞; Rio Tinto, 44 5/8 to 44¾; Tharsis, 7⅞ to 8⅛.

GLASGOW, WEDNESDAY.—Market easier, and a fair business. Scotch done at 67s. 5d., 67s 2d., 67s. 5d., and 67s. 3½d. cash; also at 67s 9d, 67s. 5½d, 67s 8d., and 67s. 7d. month; buyers, 67s. 3d. cash; sellers, ⅜d. dearer. Cleveland done at 64s. 11½d. cash; buyers, 65s. cash; sellers, 65s. 1½d. Cumberland hematite done at 71s. 4d. month; buyers, 71s. cash; sellers, 71s. 1d.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is quiet and sparingly offered. On the other hand, buyers are scarce. Olive oil is very firm, full prices being asked, and the amount offering is limited. Linseed is steady at 23s. for Liverpool makes in export casks. Cottonseed is steadily held at 18s to 18s. 6d. cwt. for Liverpool refined. Castor oil is moving fairly well. About 20 barrels first pressure French have been done at 2 3/16d. per lb Good seconds Calcutta is quoted at 2 1/16d. per lb Tallow is well held, and prices generally are firm, with a tendency to advance. Resin is moving well, and is steadily held for full prices. Spirits of turpentine are steady at 35s. cwt. on spot. Petroleum in better request at 6½d. to 7⅛d. for American, and 5⅞d to 6¼d. for Russian refined.

CAKES.—With continued strong advices from the United States markets, a firm tone still prevails here for American Western linseed on the spot, and a good consumptive business has again been effected at hardening prices, the closing value to-day marking a further advance of 5s., with sellers now asking £7. to £7. 5s. Bombay are also firm and fully 5s dearer, in sympathy with American, and a good inquiry being experienced for the limited quantity offering, which is firmly held for £7. 5s. per ton. River Plate are nominally worth £7. to £7 2s 6d. per ton, with supplies wanted here; whilst Russian are purely nominal in value for want of stock. Liverpool makes have attracted more attention from consumers during the past few days, and home crushers are firmer, an advance of 2s 6d. to 5s on last Friday's prices being quoted, the range being now from £7 10s. to £8. 5s per ton, according to brand. A good demand has been experienced for American decorticated cottonseed on the spot, and holders are very firm in their ideas, and ask an advance of 2s. 6d. for good to choice brands, the quotation being now £5. 15s. to £6. 2s. 6d., according to quality, whilst Liverpool makes, though also fairly active, remain firm at the recent quotation of £6. 5s. to £6. 15s. per ton, according to brand. For undecorticated Liverpool makes there is a very steady tone ruling, and a fair inquiry going on at former currencies, viz., £5. 7s. 6d. per ton, according to brand. Sellers of spot parcels of Egyptian are firm, and still quote £4. 15s., with buyers at £4. 13s 9d. per ton, and a fair inquiry experienced thereat.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

There has been a further declension in the Scotch position of sulphate of ammonia, and the quotation for f.o.b. Leith spot, to-day, lies between £12 5s. and £12 7s. 6d., according to the condition of the seller as to stocks in hand. Dealing on the forward basis is still totally neglected. Reports from the Mineral Oil Companies, with regard to contract making against the coming new season for burning oil, go to show that the chief makers have already fully engaged themselves forward for the whole of their available make. This would indicate that the market is very firm at the new contract prices, and that as the season goes on, any reselling that may be done, will be at a further advance. In general chemicals the feeling is good, and there is great scarcity experienced in some of the lines because of the excessive pitch of the temperature. Sulphate of copper has further declined, but lead products are higher.

Chief prices current are:—Soda crystals, £2. 7s 6d. to £2. 10s. basis nett, Tyne; soda ash, £4. 2s 6d. to £4 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £8. 15s., 70/72° £8. 60/62° £7., and cream 60/62° £7, all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 15s. nett, Tyne; saltcake, 23s to 24s.; borax, English refined, £16., and boracic acid, £25 nett, Glasgow; bicarbonate of soda, 5-cwt casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 9d.; sulphate of ammonia, £12. 5s. to £12 7s. 6d. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33 nett, any port; sulphate of copper, £23 15s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb.; paraffin spirit (naphtha), 10d. to 10½d. per gal.; paraffin oil (burning), No. 1, 6¾d.; and crystal, 7d. nett, at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865° £5. to £5 5s., 885° £5 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are quiet, and there is only a very slow demand for export. Soda crystals £2. 12s. 6d per ton, gross weight, locally. Caustic soda, £8. for 70%. and £9. for 76/77%, per ton. Sulphur, £4. 15s. per ton. Bleaching powder, softs, £5. 10s. per ton, nett; do., hards, £5. 15s. per ton, nett; caustic soda: 76/77% £9., and 70% £8. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do., 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s. per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s. per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do, 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett; do., 100°Tw., £3. per ton, nett; do., 140°Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2 12s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s od. per ton, nett; blanc fixe, £6. 10s. per ton nett; chloride of barium, refined crystals, £6. 15s. od. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. per ton, f.o.b. Tees

COALS.—Trade is rather quiter, though prices still continue fairly steady. Gas Coals are in increasing demand. Coke is very firm at 24s. and 25s. per ton, f.o.b. To-days quotations are: best Northumbrian steam, 12s. 6d. and 13s. per ton; second qualities, 11s. 6d. and 12s. per ton; small steam, 6s. 9d. and 7s. per ton; bunker coals, 10s. 3d. and 10s. 6d per ton; coke, 24s. and 25s. per ton.

New Companies.

B Hepworth & Co., Ltd.—CAPITAL £5,000. in £1. shares. This company has been formed to acquire the business carried on by B. Hepworth and J. Fehrenbach, Coventry-street, Kidderminster, as B. Hepworth & Co., and to carry on the business of chemical manufacturers, manufacturing and general chemists, druggists, drysalters, and manufacturers of and dealers in soaps, tallow, dyeware, etc. The number of directors is not to be less than 3 nor more than 7; the first are H. W. Gethin, A. Cotton, J. Harvey, J. Killingbeck, H. E. Purkiss, and B. Hepworth (managing director). Qualification £200.

Llantrisaint Ochre, Oxide, and Iron Ore Co.—CAPITAL £10,000. in £1. shares (8,000 pref. and 2,000 def) This company has been formed to acquire and carry on the business of searching for, getting, making marketable and dealing in iron and other ores, yellow stone, yellow ochre, red oxide of iron and other minerals (except coal) now carried on by S. Sloman, of Bristol. The number of directors is not to be less than 3 nor more than 7; the first are J. H. Perry, H. C. L. Matthews, and S. Sloman Qualification, £500 (managing director £1,000.); remuneration as fixed by the company.

Royston Cement Co., Ltd.—CAPITAL £65,000. in £1. shares. This company has been formed to adopt an agreement with G. B. Wilson for the acquisition of the business carried on at Barrington, Cambs., and to carry on the business of cement manufacturers, lime burners, brick and tile makers, etc. The subscribers to the memorandum of association are:—T. Livingstone, 36, Mark-lane; W. A. Owston, 61, Gracechurch-street; A. Long, Newton House, Lavine Park-road, Sydenham; H. E. Crawley, 5 K, Albany, W.; G. B. Wilson, 36, Mark-lane, E.C.; H. Brodrick, Norcott-road, Stoke Newington; S. W. Simmons, 3, Great George-street, Westminster.

Ragosine & Co., Ltd.—CAPITAL £30,000. in £10. shares (1,600. pref.). This company has been formed to carry on the business of importers, refiners and manufacturers and dealers in oils, grease, pitch, pigments, varnishes, chemical and other preparations, engineers and marine stores, and in particular to acquire and carry on the business of an oil merchant carried on by Ernest G. von Glehn, as Ragosine and Co, at 7, Idol-lane, E.C. The subscribers to the memorandum of association are:—A. G. von Glehn, Mulhome, manufacturer; H. E. Trevor, 5, New-square, Lincoln's Inn, W.C., barrister; Mrs. M. von Glehn, 21, Earl's Terrace, Kensington, W.; E. C. von Glehn, 7, Idol-lane, E.C., merchant; R. R. S. Tanner, 9, Montagu-street, Portman-square, W., accountant; W. W. Wells, 23, Lime-street, E.C., colonial merchant; J. M. Des Gratoulety, 7, Idol-lane, E.C., clerk. Registered office, 7, Idol-lane, E.C.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 19th.

Acetone—
Germany, 10 pks. J. Norrenberg & Co.
" 1 T. H. Lee

Acids—
Holland, 49 pks. Phillipps & Graves
Germany, 25 J. G. Back

Alkali—
Canada, 11 t. 3 c. J. Barber & Co.

Alum—
Holland, 194 pks. J. White

Ammonium Muriate—
Holland, 8 pks. H. Lorenz

Antimony Ore—
France, 39 t. R. H. Annison
Spain, 9 Novelli & Co.
Hong Kong, 8 City Coml. Wf

Arsenic—
Portugal, 43 pks. Coverley & Westray

Barium Chloride—
Germany, 22 pks. Petri Brs.

Barium Sulphate—
Belgium, 63 pks. J. L. Lyon & Co.

Baryt s—
Holland, 23 pks. O' Hara & Hoar
" 23 J. L. Lyon & Co.
Germany, 28 "
" 44 W. Harrison & Co.

Bleaching Powder—
Holland, 20 pks. S. E. Rly. Co.
" 70 J. M. Steel & Co.

Bones—
Sydney, 41 t. Hicks, Nash & Co.

Boracic Acid—
Germany, 8 pks. T. H. Lee

Borate of Lime—
Germany, 1,270 bgs. Borax Consol. Ld.

Borax—
Germany, £80 Craven & Co

Caoutchouc—
Natal, 13 c. J. T. Rennie, Son, & Co.
" 5 Major & Field
Germany, 19 L. & I. D. Jt. Co.
" 9 T. H. Lee
" 10 Prop. Bull Wf.
France, 1 T. H Lee
P. E Africa, 16 L. & I. D. Jt. Co.
" 1 t. Brookes & Green
E. Indies, 5 Butler's Wf., Ld.
" 1 15 W. M. Smith & Sons
Belgium, 10 Prop. Bull Wf.
Holland, 2 Anderson, Weber, & Smith
Madagascar, 1 15 Proctor Brs.
Chinde, 8 J. Morrison & Co.
Rangoon, 16 11 L. & I. D. Jt. Co.
" 17 Prop. Hay's Wf.

Carbon—
Holland 183 pks. Phillips & Graves

Carbon Black—
U. States, 885 pks. W. Caudery & Co.

Castor Oil—
E. Indies, 48 cs. Perkins & Homer
" 37 J. W. Cook & Co., Ld.
" 90 cks. Cayzer, Irvine, & Co.
Italy, 30 cs. City Coml. Wf. Co., Ld.
" 20 L. & I. D. Jt. Co.
" 25 Baron Harveys & Co.
Belgium, 125 brls. C. & E. Morton

Caustic Potash—
Germany, 5 pks. Vinolia Co.

Chemicals *(otherwise undescribed)*
Holland, £60 W. Caudery & Co.
" 10 Lawes Chemical Co.
" 9 T. Palmer
" 70 Netherlands S. B. Co.
" 35 Phillipps & Graves
Germany, 20 L. & I. D. Jt. Co.
" 42 Argo S. S. Co.
" 120 H. Lambert
" 15 H. Johnson & Sons
France, 6 Van Oppen & Co.
Belgium, 20 John Cockerill Line
" 100 S. C. Jones

Coal Products—
Pitch
Belgium, 64 brls. Callenders Cable & C. Co.
N. Russia, 100 J. D. Hewitt & Co.
" 320 cks. Harris Brs.
Germany, 48 brls. H Hunt
France, 15 "
" 15 *A. Dexter & Co.*
" *46 cks.* *H. Hill & Sons*

Tar
Channel Is. 555 brls. Burt, Boulton, & Co.

Colours—
Holland, 4 cks. O'Hara & Hoar
Italy, 8 Wilkinson, Heywood, & Co.
" 8 brls. Pilchers, Ld.

Cream of Tartar—
Portugal, 5 pks. B. & F. Wf. Co., Ld.
France, 5 "
Holland, 4 Kirkpatrick, Barr & Co.
Belgium, 10 F. C. Devon & Co.
Italy, 69 W. C. Bacon & Co.

Disinfectants—
Germany, £35 J. Norrenburg & Co.

Dyestuffs—
Aniline
Holland, 3 pks. M. Benscher
Argols
Italy 964 pks. B. Jacob & Sons
Cochineal
Canary Is., 15 pks. W. M. Smith & Sons
" 106 G. S. Bruce
" 20 Hendry & Martin
" 42 Swanston & Co.
Cutch
Rangoon, 250 pks. Leach & Co.
" 200 Brown & Elmslie
Extracts
France, 100 pks. Bellamy's Wf., Ld.
" 95 B. & F. Wf. Co. Ld.
U. States, 20 Rosenberg, Loewe, & Co.
" 9 J. W. & T. A. Smith
" 50 Atlantic Trans. Co.
Austria, 70 Bellamy's Wf., Ld.
Denmark, 4 t. M. D. Co.
Gambier
Straits, 1,969 pks. P. & O. Co
" 84 Anderson, Weber & Smith
" 264 W. France & Co.
" 654 Prop. Hay's Wf.
Indigo
E. Indies, 5 chts J. Owen
France, 2 L. Archard & Co.
Myrabolams
E. Indies, 683 pks. A. Everingham & Co.
" 6,828 W. Shelcott & Sons
" 1,366 Cayzer, Irvine, & Co.
" 959 H. J. Perlbach & Co.
" 407 F. Claydon & Co.
" 1,000 P. & O. Co.
Saffron
Spain, 1 pk. J. Barber & Co.
Sumac
Italy, 1,830 pks. J. Kitchin, Ld.
France, 100 R. Warner & Co.
Tanners' Bark
Natal, 91 t. A. & W. Nesbitt
" 180 J. T. Rennie, Son & Co.
Valonia
Straits, 50 t. Boutcher, Mortimore, & Co.

Farina—
Holland, 50 pks. J. Knill & Co.
Germany, 300 J. Barber & Co.
" 200 R. Bennett & Co.

Fluoride—
Holland, £34 R. W. Greeff & Co.

Glucose—
U. States, 250 pks. 250 c. Fellows, Morton & Co.
" 500 500 C. Mangold & Co.
" 999 685 Ohlenschlager Brs.
" 500 500 L. & I. D. Jt. Co.
France, 180 180 Trier, Meyer, & Co.
" 100 100 Vokins & Co., Ld.
Germany, 10 10 Colthurst & Harding

Glue—
Belgium, £380 T. Ronaldson & Co.
" 300 G. E. Banes
Germany, 15 Craven & Co.
" 30 D. Magnus
" 143 L. & I. D. Jt. Co.
" 19 T. H. Lee
" 50 H. Lambert
" 60 M. D. Co
" 92 Seaward Brs. & Co.
France, 39 Mory & Co.
" 101 J. Harrison
" 1,025 T. M. Duche & Sons
" 29 Prop. Hay's Wf.
" 200 W. Balchin, Ld.
" 40 B. & F. Wf. Co., Ld.
Holland, 12 Phillipps & Graves
" 61 G. S. N. Co.
" 325 M. H. Voss
Austria, 60 Bellamy's Wf., Ld.

Glycerine—
Germany, £150 L. & I. D. Jt. Co.

Gutta Percha—
Holland, 6 c. L. & I. D. Jt. Co.
W. Indies, 5 "
B. Guiana, 3 "
Straits, 6 t. 5 Kleinwort, Sons, & Co.
" 5 15 Prop. Bull Wf.

Lead Acetate—
Germany, 13 pks. P. Jantzen
" 22 F. Boehm
" 12 R. W. Greeff & Co.

Litharge—
Germany, 3 pks. H. Lambert

Magnesia—
Holland, 5 pks. A. & M. Zimmermann

Manganese Ore—
Germany, 2 t. J. Barber & Co.

Manure—
Germany, 50 t. F. W. Berk & Co., Ld.
E. Indies, 749 A. Hunter & Co.

Methyl Alcohol—
France, 840 g. T. Jones & Co.
" 4,413 E. Catlin
Germany, 1,400 T. Jacobs & Co.

Molasses—
U. States, 425 cks. 2,400 c. L. & I. D. Jt. Co.
Germany, 173 880 Ohlenschlager Brs.
Egypt, 2 tnks. 1,800 Honeywell Brs.
" 4,300 J. R. Francis & Co.

Ochre—
France, 37 pks. W. Harrison & Co.
" 34 J. L. Lyon & Co.
" 60 Ellam, Jones, & Co.

Paraffin Wax—
Rangoon, 317 bxs. H. Hills & Sons

Phosphates—
France, 234 t. Anglo-Cont. Guano Wks.

Potash—
Germany, 5 pks. L. & I. D. Jt. Co.
" 2 T. H. Lee
Holland, 31 "
Belgium, 35 "

Potassium Bicarbonate—
Holland, 27 pks. A. & M. Zimmerman

Potassium Carbonate—
Germany, 5 t. Petri Brs.

Potassium Muriate—
Germany, 500 pks. Bessler, Waechter, & Co.

Potassium Oxalate—
Holland, 10 pks. R. W. Greeff & Co.

Potassium Sulphate—
Germany, 40 pks Howards & Sons

Red Lead—
Germany, 3 pks Hemingway & Co
" 35 D. Storer & Sons

Rosin—
France, 13 brls. C. W. Schmidt
" 5 J. Spurling

Salicylic Acid—
Germany, 25 pks. T. H. Lee

Saltpetre—
Germany, 350 bgs. S. E. Rly. Co.
" 10 cks. R. W. Greeff & Co.
" 60 P. Hecker & Co.
Belgium, 85 bgs. J. Greig
E. Indies, 668 Lucas & Spencer's Wf.

Soda—
Canada, 12 t. J. Harrison

Soda Crystals—
Belgium, 20 t. A. G. Barker

Sodium Carbonate—
Germany, 11 c. H. Lambert

Sodium Hypochlorite—
Germany, 5 t. 12 c. H. Lambert

Sodium Nitrate—
Holland, 8 pks. G. S. N. Co.
Chile, 17,788 bgs. W. Montgomery & Co.

Sodium Prussiate—
Belgium, 16 pks. J. Owen

Sodium Sulphide—
Germany, 30 pks. H. Wallace & Co.

Starch—
U. States, 700 pks. R. G. Hall & Co.
" 373 R. Bennett & Co.
" 125 L. Sutro & Co.
France, 85 A. C. Hitchcock
Holland, 1,000 D. R. Wallis
" 500 Little & Johnston
" 258 J. R. Francis & Co.
" 700 A. Starck
" 20 G. S. N. Co.
" 40 Pearce, Duff & Co.
" 74 Phillipps & Graves
Belgium, 18 Leach & Co.
" 320 T. Ronaldson & Co.
" 380 T. H. Lee
" 40 J. Barber & Co.
" 80 C. Tennant, Sons & Co
Germany, 2,560 Horne & Co.
" 6 T. H. Lee
Austria, 15 Bellamy Wf., Ld.

Stearine—
Holland, 51 cks. J. Owen
" 339 bgs. H. Hill & Sons
Belgium, 165 "
France, 123 "
N. Zealand, 6 cks. L. & I. D. Jt. Co.

Sulphur—
Italy, 100 t. A. F. White & Co.
" 11 J. Kitchin, Ld.
" 20 J. Greig
" 8 C. & E. Morton
" 43 G. Boor & Co.
" 23 Deering & Robottom
" 50 A. Taylor
" 10 W. Berry
" 50 F. C. Devon & Co.
" 5 Harris Brs
" 5 W. Slimmon
" 5 W. C. Bacon & Co.
Spain, 20 J. Forster

Sulphuric Acid—
Germany, 25 pks. A. Frey & Co.

Tallow—
N.S.W., 209 cks. J. W. Cook & Co
" 88 Beresford & Co.
" 86 Flack, Chandler, & Co.
" 62 Culverwell, Brooks, & Co.
" 283 Goad, Rigg, & Co.
" 235 C. A. & H. Nickols
" 21 Deering & Robottom
" 57 Bessler, Waechter, & Co.
N. Zealand, 5 N. M. & A. Co.
" 103 N. Z. L. & M. A. Co.
" 62 Phillipps & Graves
" 173 Elkan & Co.
" 3 L. & I. D. Jt. Co.
" 60 Beresford & Co.
" 33 Lucas & Spencer's Wf.
Queensland, 125 H. Lambert
France, 129 bgs. H. Hill & Sons

Tartar—
Italy, 43 cks. B. Jacob & Sons

Tartaric Acid—
Holland, 72 pks. Kirkpatrick, Barr, & Co
Belgium, 20 F. C. Devon & Co.

Ultramarine—
Holland, 8 pks. J. Barber & Co.
" 20 Thames S. T. & L. Co., Ld.
" 4 J. Owen
" 2 G. S. N. Co.
" 4 Phillipps & Graves
" 10 J. Harrison
" 10 W. Harrison & Co.
Belgium, 1 O. Lechla

Varnish—
France, 3 pks. Rosenberg, Loewe & Co.
" 10 R. Thompson
U. States, 83 Beck & Pollitzer
" 51 Taylor Brs.
Germany, 2 T. H. Lee
Holland, 6 Phillipps & Graves

Verdigris—
France, 4 pks. B. & F. Wf. Co., Ld

Waste Salt—
Germany, 2 t. J. Norrenberg & Co.

White Lead—
Germany, 31 pks. J. Kitchin, Ld.
" 24 H. B. Alder & Co.
" 18 N. J. Fenner & Co.
" 18 Perkins & Homer
" 97 Wilkinson, Heywood & Co.
" 4 Haeffner, Hilpert, & Co.
Holland, 30 Perkins & Homer
" 46 Burrell & Co.

,, 19 A. & M. Zimmermann
,, 40 Randall Brs.
,, 32 Taylor Brs.
,, 20 Kerestedji & Co.
,, 54 T. & W. Farmiloe, Ld.
Belgium, 87 ,,
,, 53 J. L. Lyon & Co.

Wood Pulp—
Norway, 400 bls. W. D. Cork
,, 65 t. J. Goodchild & Co.
,, 150 pks. A. E. Reed & Co
,, 1,280 W. E. Bott & Co.
Sweden, 244 W. G. Taylor & Co.
,, 300 G. Hagborg & Co.
,, 40 Andrews & Co.
,, 5,278 Henderson, Craig, & Co.
Germany, 3,048 ,,
U. States, 5,270 ,,
,, 510 W. G. Taylor & Co.
Canada, 160 W. D. Cork
Belgium, 2,040 J. Harrison

Zinc Oxide—
Holland, 500 pks. Soundy & Sons
,, 80 M. Ashby, Ld.
,, 75 Burrell & Co.
Germany, 35 W. Balchin, Ld.

Zinc White—
Holland, 20 pks. J. Barber & Co

LIVERPOOL.

Week ending August 17th.

Acids—
Leghorn, 3 brls.

Alumite—
Sydney, 230 t. Australian Alum Co.

Barytes—
Antwerp, { 119 cks. / 70 bgs
Hamburg, 200
Rotterdam, { 50 / 11

Bones—
Maranham, — H. Evans

Castor Oil—
Calcutta, 250 cs.

Chemicals (*otherwise undescribed*)
Antwerp, 5 cks.
Hamburg, 5 cs.

Chrome Ore—
Smyrna, 681 bgs.

Coal Products—
Pitch
Archangel, 200 cks.
Marseilles, 109
Newfairwater, 20 kgs.
Tar
Archangel, 2,851 brls.
Newfairwater, 8

Colours—
Havre, 20 cs. Cunard S.S. Co.
Antwerp, 20 cks 18 kgs.
Hamburg, 1
Stettin, 6 Clayton & Torett
Rotterdam 11 tubs

Cottonseed Oil—
New York, 35 brls.
Newport News, 266

Cream of Tartar—
Bordeaux, 12 cks.
Barcelona, 12

Dyestuffs—
Cutch
Rangoon, 500 bxs. Baring Brs. & Co.
,, 225
Extract
St. Nazaire, 260 cks.
Rotterdam, 50
New York, 100 brls. McArthur & Co.
Philadelphia, 30
Fustic
Kingston, Ja., 1,108 pcs.
Saffron
Valencia, 1 cs.
Sumac
Valencia, 1,300 bgs.
Turmeric
Calcutta, 85 bgs.

Dyewood Extract—
New York, 150 brls. McArthur & Co.

Glucose—
Baltimore, 400 brls.
New York, 125

Glue—
Hamburg, 50 bgs.
Rotterdam, 145
Rosen, 83 cks. Co.-op. W'sale Society, Ld.
Calcutta, 10 cs.

Manganese Ore—
Poti, 2,770 t.

Molasses—
N. Orleans, 250 brls J. Young & Co.
,, 158

Ochre—
Rouen, 120 cks. Co-op W'sale Society, Ld.

Paraffin Wax—
New York, 385 brls. Thompson & Bedford

Phosphates—
Norfolk, Va., 276 t. R. Holloway
,, 3,298

Phosphorus—
Montreal, 220 cs.

Potash—
Dunkirk, 100 dms.
Hamburg, 32 cks.

Pyrites—
Huelva, 1,470 t. Matheson & Co.

Red Lead—
Rotterdam, 44 cks.

Rosin—
New York, 2,990 brls.
Baltimore, 2,107
Savannah, 4,502
Bordeaux, 1 ck.

Salt—
Antwerp, 1 prcl.

Saltpetre—
Hamburg, 37 cks.

Soap—
Boston 25 bxs.
Constantinople, 17
New York, 1,000 brls. Lever Bros., Ld.
,, 58 1 bx.
,, 5 bxs. E. Billington & Son
Newport News, 200
Sydney, 105 cs. Lever Brs., Ld.
Marseilles, 120 G. H. Fletcher & Co.

Soap Stock—
Norfolk, Va., 711 brls. 869 bdls.

Soapstone—
Bordeaux, 160 bgs. Geo. G. Blackwell, Sons, & Co.

Soda—
Stettin, 22 cks. U. A. Co.

Sodium Silicate—
Rotterdam, 2 cs.

Starch—
New York, 12 brls. Ferguson & Mackie
Antwerp, 110 cs. J. T. Fletcher
70 bgs. & Co.
,, 190 cs.
Rotterdam, 150 Brown, Geveke, & Co.
,, 10
Hamburg, 148

Stearine—
Antwerp, 106 bgs. 1 bx.

Sulphur—
Catania, { 350 bgs. / 250 bls. / 66 brls. / 100 cks.

Talc—
Genoa, 30 bgs.

Tallow—
New York, 1 pk. Colby & Co.
,, 50 hhds. M. M. Schultz & Co.
Sydney, 1,171 cks. Lever Brs., Ld.
Montreal, 150 H. Cook & Co.
Rotterdam, 10 tcs.
Baltimore, 20 J. M'Kee & Co
,, 200

Turpentine—
Savannah 2,970 t.

Turpentine Oil—
Newfairwater, 42 cks.

Ultramarine—
Bremen, 4 cks.
Rotterdam, 36

Varnish—
Rotterdam, 3 cks.

White Lead—
Rotterdam, 56 cks.

Wood Pulp—
Gothenburg, 5 bls.
,, 45 pks. Schenkenwald & Co.
Rotterdam, { 30 / 169 bls.
Quebec, 1,600 A. Wortheim & Co.
,, 90 pks. H. B. Wood
Halifax, 6,302 bls. Becker & Co.

Zinc Oxide—
New York, 160 brls.
Antwerp, 35

Zinc White—
Rotterdam, 69 cks.

MANCHESTER.

Week ending August 19th.

Ammoniac—
Rotterdam, 4 cs.

Barytes—
Antwerp, 150 bgs.

Caustic Lye—
Hamburg, 20 dms.

Chemicals (*otherwise unscribed*)
Antwerp, 16 brls.

Coal Products—
Alizarine
Rotterdam, 89 cks.
Aniline Colours
Rotterdam, 28 cks. 21 cs.
Aniline Salt
Rotterdam, 2 cks.
Beta Naphthol
Rotterdam, 12 cks.

Colours—
Antwerp, 14 pks.
Hamburg, 17 cks. 5 cs.
Rotterdam, { 22 17 / 114 brls. / 1 bx.

Cream of Tartar—
Rotterdam, 22 cks.

Dyestuffs—
Extract
Rotterdam, 6 cks.

Farina—
Stettin, 1,801 bgs. Browne, Geveke & Co.
,, 53

Glucose—
Stettin, { 993 bgs. / 50 cks.

Glue—
Rotterdam, 260 bgs.
Stettin, 40

Limestone—
Antwerp, 2 crts. 3 cs. 9 pks.

Mineral White—
Rotterdam, 1 ck.

Naphthol Natrium—
Rotterdam, 2 cks.

Potash—
Hamburg, 10 dms.

Potassium Permanganate—
Hamburg, 6 kgs.

Potassium Prussiate—
Antwerp, 8 cks.

Red Lead—
Rotterdam, 8 cks.

Soap—
Hamburg, 2 cs.
Rotterdam, 5 bgs.

Sodium Nitrate—
Rotterdam, 40 cks.

Starch—
Antwerp, { 3 bgs. / 352 cs.
Montreal, 200 sks.
Rotterdam, 170

Stearine—
Antwerp, 7 bgs.
Rotterdam 64 bls.

Tartaric Acid—
Rotterdam, 8 cks.

Waste Salt—
Hamburg, 1 brl. (also a qty.)

Wood Pulp—
Gothenburg, 1,802 bls.
Rotterdam, 219 rolls
Stettin, 651 bdls.

Zinc Oxide—
Antwerp, 5 cks.

Zinc Sulphate—
Rotterdam, 2 cks.

HULL.

Week ending August 19th.

Acids—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Aluminium—
New York, 200 bxs. Wilson, Sons, & Co., Ld.

Barytes—
Amsterdam, 111 cks. Hull & Netherlands S. S. Co.
Antwerp, 54 Bailey & Leetham, Ld.
,, 68 H. F. Pudsey
Bremen, 18 G. Holmes & Co.
,, 29
,, 22 pks. Veltmann & Co.

Bones—
Hamburg, 1 bg. Wilson, Sons, & Co., Ld.

Caustic Potash—
Bremen, 8 dms.

Chemicals (*otherwise undescribed*)
Amsterdam, 1 cs. Hull & Netherlands S. S. Co.
Danzig, 11 cks. Wilson, Sons, & Co., Ld.
Hamburg, 2 pks.

Coal Products—
Alizarine
Rotterdam, 89 pks. Hull & Netherlands S. S. Co.
3 brls.
Pitch
Copenhagen, 40 brls. Wilson, Sons, & Co., Ld.
Tar
Uleaborg, 750 brls. J. M. Hamilton & Co.

Colours—
Antwerp, 14 cks. Wilson,
25 pks. Sons, & Co., Ld.
Bremen, 1 Sissons Brs. & Co.
,, 3 cs. J. Pyefinch & Co.
Danzig, 11 cks. Wilson, Sons, & Co., Ld.
Ghent, 17 brls. ,,
Rotterdam, { 54 pks. / 22 cks. / 40 brls. Hull & Netherlands S. S. Co.
Stettin, 12 cks. Wilson, Sons, & Co., Ld.

Cottonseed Oil—
New York, 120 brls. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Bordeaux, 1 ck.

Dextrine—
New York, 3 bgs.
Stettin, 50 Wilson, Sons, & Co., Ld.

Dyestuffs—
Extract
Bordeaux, 102 cks.
Indigo
Kurrachee, 15 cs. Wilson, Sons, & Co., Ld.
Rotterdam, 3 brls. Hull & Netherlands S. S. Co.
Myrabolams
Bombay, 2,166 bgs.

Dyewood—
Rotterdam, 7 cks. Hull & Netherlands S. S. Co.

Farina—
Stettin, 500 bgs. Wilson, Sons, & Co., Ld.
,, 800

Glucose—
New York, 100 brls. Wilson, Sons, & Co., Ld.
,, 3 bgs.

Glue—
Christiansund, 2 brls. Wilson, Sons, & Co., Ld.
Hamburg, 6 cks. Bailey & Leetham, Ld.

Glue Stock—
Hamburg, 194 pks. Wilson, 132 bls. Sons, & Co., Ld.

Lead Acetate—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.

Limestone—
Antwerp, 4 crts. Wilson, Sons, & Co., Ld.

Lithopone—
Amsterdam, 41 cks. Hull & Netherlands S. S. Co.

Mineral White—
Rotterdam, 11 cks. Hull & Netherlands S. S. Co.

Nickel Salt—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Paint—
Amsterdam, 8 pks. Hull & Netherlands S. S. Co

Potash—
Antwerp, 4 cks.
Dunkirk, 28 Wilson, Sons, & Co., Ld.

Red Lead—
Rotterdam, 6 cks. Hull & Nether- Sons, & Co., Ld.

Rosin—
Savannah, 1,400 brls.

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.

Soap—
Christiania, 2 bxs. Wilson, Sons, & Co., Ld.
New York, 200

Soda—
Ghent, 150 bgs. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 120 cs. Hull & Netherlands S. S. Co.
Antwerp, 40 Bailey & Leetham, Ld.
,, 200 bgs.
Bremen, 979 cs. Veltmann & Co.
Ghent, 268 Wilson, Sons, & Co., Ld.
New York, 6 bgs.

Tallow—
Dunkirk, 87 cks. Wilson, Sons, & Co., Ld.
New York, 100 tcs. ,,

Tartaric Acid—
Rotterdam, 20 cks. Hull & Netherlands S. S. Co.

Turpentine—
Riga, 53 brls.
Savannah, 2,056

Ultramarine—
Bremen, 16 cks.
,, 2 H. J. Greaves & Co
Rotterdam, 1 Hull & Netherlands S S Co.

White Lead
Amsterdam, 12 cks. Hull & Netherlands S. S. Co.
Rotterdam, 52 ,,

Wood Pulp—
Christiania, 50 pks.
Drontheim, 400 Wilson, Sons, & Co., Ld.
Gothenburg, 45 176 bls.

Zinc White—
Hamburg, 12 cks.

GLASGOW.

Week ending August 24th.

Acetic Acid—
Rouen, 19 cks.

Barium Sulphate—
Antwerp, 1,355 bgs.

Barytes—
Rotterdam, 16 cks. J. Rankine
13 pks. & Son

Bleach—
Hamburg, 34 cks.

Bromine—
Hamburg, 1 cs.

Castor Oil—
Antwerp, 48 cks

Chemicals *(otherwise undescribed)*
—— 1 cs. J. Rankine & Son

Chrome Fluoride—
Rotterdam, 5 cs. J. Rankine & Son

Citric Acid—
Messina, 12 cks.

Coal Products—
Alizarine
Rotterdam, 30 cks. J. Rankine
21 brls. & Son
Aniline
Rotterdam, 64 bxs. J. Rankine
3 cs. & Son
Aniline Colours
Amsterdam, 1 ck.
Betanaphthol
Rotterdam, 1 ck. J. Rankine & Son
Pitch
Hamburg, 8 cs.
Tar Oil
Hamburg, 5 cks.

Colours—
Rotterdam 6 cks. J. Rankine
2 cs. & Son
Hamburg, 1 ck.

Dyestuffs—
Cutch
Rangoon, 659 bxs. P. Henderson & Co.
Extract
Rouen, 15 cks.
Logwood
Belize, 517 t. 17 c. 2 q.
Laguna de Terminus, 127 C. Henderson & Livingston
Sumac
Palermo, 1,325 bgs.
Turmeric
Calcutta. 500 pckts.

Dyewood Extract—
Antwerp. { 45 bgs. 1 ck.

Farina—
Hamburg, 105 bgs.

Gelatine—
Hamburg, 100 cs.

Glucose—
Montrea 50 brls.

Glue—
Antwerp, 17 cks.
Rouen, { 58 5 bls.

Mineral White—
Fiume, 100 bgs. P. M'Intosh & Co.
Trieste, 20

Ochre—
Rouen, 36 cks.

Oxalic Acid—
Rotterdam, 8 cks. J. Rankine & Son

Oxide of Iron—
Trieste, 25 cks. Ferguson & Reid

Painters' Colours—
Antwerp, 1 ck.

Paraffin Wax—
Rangoon, 334 bgs. P. Henderson
128 bxs. & Co.

Phosphates—
Antwerp, 1,010 bgs.

Potash—
Hamburg, { 22 cs. 500 cks.
Montreal. 8 brls. J. & A. Allan

Potassium Nitrate—
Hamburg, 500 cs.

Pyrites—
Huelva, 1,751 t. Tharsis Sulphur & Copper Co.

Saltpetre—
Hamburg { 20 kgs. 100 cks.

Soap—
Genoa, 19 cs.
Fiume. 65
New York, 337 brls.

Soda—
Fiume, 4 cks.

Starch—
Antwerp, 1 ck. 170 cs.
Fiume, 50 bgs. J. Anderson & Co.
,, 30

Stearine—
New York, 30 tcs.

Sulphur—
Catania, { 1,315 bgs. 162 brls.

Tallow—
New York, 50 tcs.
Rotterdam, 60 J. Rankine & Son

Tartar—
Messina, 4 cks.

Ultramarine—
Antwerp, 1 ck.
Rotterdam, 2 cks. J. Rankine & Son

Varnish—
Antwerp, 9 crts.
New York, 100 brls.

Waste Salt—
Hamburg, qnty. 100 bxs.

White Lead—
Rotterdam, 60 pks. J. Rankine
18 brls. & Son

Wood Pulp—
Hamburg, 340 bls.
Drammen, 2,040
Benisaf, 574 t. 10 c. Brown, Stewart, & Co.
Montreal, 111 pks.
Christiania, 11 cs.

Zinc White—
Rotterdam, 5 pks. J. Rankine & Son

TYNE.

Week ending August 19th.

Alcohol—
Hamburg, 1 dm. Tyne S. S. Co

Asbestos—
Hamburg, 48 bgs. Tyne S. S. Co.

Colours—
Antwerp, 2 cks. Tyne S. S. Co.
Hamburg, 3 ,,
Rotterdam, 2 brls. ,,

Felspar—
Christiania, 500 bgs.

Glue—
Antwerp, 16 bls. Tyne S. S. Co.
Rotterdam, 10 baskts. ,,

Limestone—
Antwerp, 3 crts. Tyne S. S. Co.

Soap—
Rotterdam, 4 cs. Tyne S. S. Co.

Starch—
Antwerp, 130 cs. Tyne S. S. Co.
Rotterdam, 74 ,,

Stearine—
Antwerp, — Tyne S. S. Co.

Wood Pulp—
Christiania, 580 bls.
Gothenburg, 240 pks.

Zinc Oxide—
Antwerp, 15 brls. Tyne S. S. Co.

GOOLE.

Week ending August 16th.

Antimony—
Boulogne, 3 cks.

Barytes—
Antwerp, { 190 bgs. 2 cks.

Caoutchouc—
Boulogne, 13 cks.

Chemicals *(otherwise undescribed)*
Rotterdam, 6 cks.

Coal Products—
Alizarine
Rotterdam, 47 cks. 27 cs.
Naphthol
Antwerp, 1 ck.

Colours—
Hamburg, 16 cks 5 cs.

Dyestuffs *(otherwise undescribed)*
Amsterdam, 8 cks.
Boulogne, 22
Rotterdam, 428 92 cs 1 pk.

Farina—
Delfszhyl, 350 bgs.

Glucose—
Hamburg, 26 cks

Glue—
Antwerp, 19 bgs.
Boulogne, { 4 cks 3 bgs.

Potash—
Dunkirk, 10 cks.

Potassium Sulphate—
Rotterdam, 3 cks.

Saltpetre—
Rotterdam, 100 bgs.

Sodium Silicate—
Rotterdam, 1 ck.

Starch—
Ghent, 51 cs.

Waste Salt—
Hamburg, { 470 t 609 cks.

Wood Pulp—
Rotterdam, 54 bs.

GRIMSBY.

Week ending August 19th.

Caoutchouc—
Antwerp, 1 cs.
Hamburg, 26
Rotterdam, 2

Chemicals *(otherwise undescribed)*
Hamburg, 1 ck. 5 cs.
Rotterdam, 10

Colours—
Antwerp, 24 cks. 69 pks.
Hamburg, 53 16 cs. 150

Dyes—
Rotterdam, 6 kgs.

Farina—
Hamburg, 32 bgs.

Manganese Ore—
Hamburg, 1 ck.

Saltpetre—
Hamburg, 75 bgs.
Rotterdam, 1 ck.

Varnish—
Hamburg, 1 baskt.

Zinc Ashes—
Antwerp, 20 cks.
Rotterdam, 5

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 23rd.

Acids—
Auckland, 12 pks. £14
Shanghai, 10 cs. 17

Alkali—
Lyttelton, 5 c. £20
New York, 7 t. 17 127

Ammonia—
Calcutta, 20 cs. £29

Ammonium Carbonate—
Hamburg, 33 pks. 160
Singapore, 28 cs. 53
Melbourne, 20 27
Yokohama, 5 t. 144
New York, 25 cks. 195

Ammonium Muriate—
Cologne, 11 cks. £52

Ammonium Sulphate—
Bremen, 40 t. £500
Hamburg, 40 500

Arsenic—
Gisborne, 1 t. £21
Yokohama, 1 21

Bleaching Powder—
Bombay, 1 t. £10

Bone Ash
Auckland. 1 t. £15
Fremantle, 1 8 c. 22

Boracic Acid—
Fremantle, 11 c. £15

Borax—
E. London 1 cs. £10
Melbourne, 12 kgs. 10
Sydney, 1 t. 10 brls. 33

Carbonic Acid Gas—
Bermuda. 24 cs. £120
Channel Is, 79 tubes 30

Caustic Potash—
Lyttelton, 2 t. 3 c. £54

Caustic Soda—
Sulina 2 c. £8
E. London, 1 t. 1 23
Hong Kong, 4 6
Rangoon, 11 5
Philadelphia, 16 25 100
Fremantle, 1 14
Adelaide, 10 9

Chemicals (*otherwise undescribed*)
Malaga, 7 cs. £57
Montreal, 20 kgs. 62
Melbourne, 41 pks. 98
Perth, 15 161
Rotterdam, 10 83
Hamburg, { 11 / 4 cks. } 236
Ostend, 1 165
Durban, 14 95
Pt. Elizabeth, 4 44
New York, 25 514
Adelaide, 5 31
Brisbane, 5 30
Alexandria, 10 18
Antwerp, 26 301
Kobe, 2 63
Brussels, 4 49
Las Palmas, 1 10
Zanzibar, 1 15
Karachi, 5 44
Brisbane, 5 14
Singapore, 13 23
Ostend, 4 72
Bombay, 15 57
Sydney, 16 6 66
Auckland, 6 2 74

Citric Acid—
Bombay, { 1 cs. / 6 c. } £17
Karachi, { 5 / 1 cs. } 31
Hamburg, 1 t. 125
Trinidad, 1 6
St. Petersburg, 16 cks. 675
Montreal, 2 20
Napier, 3 c. 21
Calcutta, 3 27

Coal Products—
Alizarine
St. Petersburg, 4 cs. £200
Lisbon, 3 cks. 44
Boston, 54 603
Bombay, 25 60
Aniline
Oamaru. 4 pks. £9
Calcutta, 1 cs. 11
Melbourne, 3 73
Sydney, 1 11
Aniline Oil
New York, 10 dms. £250
Benzol
Rotterdam 48 cks. £162
Carbolic Acid
Calcutta, 2 cs. £5
Hiogo. 100 dms. 350
Ludwigshafen, 25 brls 135
Yokohama, 100 315
Bombay, 100 33
Dyes
Lyttelton, 1 kg. £10
Boulogne, 8 pks. 110
Philadelphia, 2 brls. 81
Naphtha
Auckland, 13 kgs. £5
Fremantle, 5 6
Napier, 49 dms. 32
Singapore, 10 15
Sydney, 150 83
Naphthaline
Calcutta, 20 kgs. 23 cs. £34
Melbourne, 10 5
Pitch
Varna, 45 brls. £14
Halifax, 230 60
Calcutta, 8 cks. 8
Pyridine
Hamburg, 2 cks. £18
Tar
Danzig, 5 cks. £25
Tar Oil
Paris. 25 cks. £35
Adelaide, 51 dms. 6
Toluol
Rotterdam, 25 cks. £80

Coal Products (*otherwise undes.*)—
Gibraltar, 6 brls. £5

Copper Sulphate—
E. London, 16 c. £20
Amsterdam, 1 t. 9 30

Cream of Tartar—
Wellington, 10 c. £38
Melbourne, 1 t. 10 115

Disinfectants—
Bahia Blanca, 10 pks. £18
Montreal, 27 11
Auckland, 16 41
Hamburg. 19 cks. 34
Melbourne, 10 brl. 100 dms. 56
Bombay, 235 9 cs. 100 161
Brisbane, 24 15
Pt. Elizabeth 50 29
Sydney, 14 3 pks. 71

Glycerine—
New York, 50 t. 7 c. £1,440

Manure—
Lyttelton, 70 t. £199
Hamburg, 50 280
Guernsey, 1 10
Riga, 101 4 c 220
Malaga, 315 2,760

Muriatic Acid—
Boca, 10 c. £12

Nitric Acid—
Karachi, 8 cs. £10

Oxalic Acid—
Madras, 16 c. £24

Oxygen Gas—
Amsterdam, 1 cs. £14

Potash—
Bombay, 5 c. £19

Potassium Chlorate—
Auckland, 3 kgs. £5
Cape Town, 5 c. 8

Potassium Cyanide—
Melbourne, 2 t. £224
Durban, 0 952
Madras, 11 c. 42
Auckland, 2 225

Potassium Permanganate—
Sydney, 3 c. £7

Potassium Prussiate
Antwerp, 1 t. 6 c. £93

Salammoniac—
Varna, 9 c. £14

Salicylic Acid—
Yokohama, 15 c. £154

Saltpetre—
Sydney, 2 t. £43
Hamburg, 2 43
Madeira, 1 7 c. 32
Santos, 1 1 23
Montreal, 15 300

Sheep Dip—
B. Ayres. cs. £3,038
Odessa, 200 350
Pt. Elizabeth, 6 t. 5 0 725
Calcutta, 11 c. 10

Soda—
Montreal, 9 c. £14
Toronto, 2 t. 7 8

Soda Crystals—
Pt. Elizabeth, 5 t. 11 c. £17
Durban 3 5 10

Sodium Bicarbonate—
Napier, 2 t. £12
Christchurch, 5 25
Invercargill, 1 6
Napier, 2 12

Potassium Carbonate—
Madras, 6 c. £6
Sydney, 5 8

Sodium Silicate—
Napier, 14 c. £6
Nelson, 2 t. 10 13

Strychnine—
Melbourne, 3 cs. £15

Sulphur—
E. London, 15 cks. 23 kgs. £23
Tampico 100 bgs. 52
Pt. Elizabeth, 1 t. 13 c. 11

Sulphuric Acid—
Durban, 10 cs. £18

Superphosphates—
Huelva, 203 t. £775

Tartaric Acid—
Karachi, 4 cs. £74
Napier, 2 kgs. 3 c. 31
Sydney, 4 25
Otago, 5 26
Yokohama 3 t. 3 343

Washing Powder—
Sydney, 5 t. 7 c. £100

LIVERPOOL.

Week ending August 23rd.

Acetic Acid—
Lisbon, 12 brls. £19

Aluminous Cake—
Calcutta, 251 t. 7 c. 3 q. £89

Ammonium Acetate—
Piræus, 5 c. £10

Ammonium Carbonate—
Hiogo, 2 t. 14 c. £72
Antwerp, 18 23
Gothenburg, 4 7 107
Stettin, 1 ck. 19 34
Konigsberg, 10 73

Ammonium Muriate—
Naples, 1 t. 1 c. £22
Philadelphia, 23 4 477
Copenhagen, 15 18

Ammonium Sulphate—
Cheribon, 54 t. 4 c. 1 q. £607
Sourabaya, 96 14 2 1,114
New York, 25 5 310
Bordeaux, 59 10 745
Teneriffe, 5 2 65
Las Palmas, 11 4 119
Philadelphia, 25 13 3 321
Valencia, 13 180
Leghorn. 45 16 638
Samarang, 229 2 3 2,798
Demerara, 100 1,265

Arsenic—
Maranham, 1 t. 2 c. 3 q. £23

Basic Slag—
Bordeaux, 689 t. 15 c. £1,035
Algoa Bay, 3 8
Natal, 50 106
Cape Town, 22 56

Bleaching Powder—
Ancona, 30 cks.
Baltimore, 173
Boston, 134 737 brls.
E. Pepperell, 55
Leghorn. 19
Montreal, 21
Melbourne, 70
Naples, 15 cs.
Norrkoping, 151
Philadelphia, 52
B. Ayres, 11
Rouen, 15
Trieste, 30

Boracic Acid—
Rotterdam, 1 t. £26
Brisbane, 1 26
New York, 1 26
Montreal, 3 75

Borax—
Shanghai, 2 t. 5 c. £31
Stockholm, 10 13 330
Lisbon, 6 2 1 100
Brisbane, 1 16
Natal, 2 18 71
Stettin, 1 16
Cienfuegos, 1 4 19
New York, 5 10 1 88
Matanzas, 1 6 1 6
Montreal, 14 1 1 230

Calcium Chloride—
Rangoon, 4 t. 1 c. £9
Genoa, 7 3 19
Melbourne, 4 19 11
Montreal, 9 17 22

Caustic Soda—
Alexandria, 18 dms.
Amsterdam, 649
Antwerp, 320
Barcelona, 355 8 pks.
Bombay, 40
B. Ayres, 25
Catania, 30
Constantinople, 28
Dunedin, 36
Fairwater, 18
Fremantle, 80
Galatz, 33
Geelong, 12
Genoa 300
Gutujewsky, 100
Hamburg, 179
Johannesburg, 40
Karachi, 12
Konigsberg, 69
Leghorn, 119
Madras, 48
Melbourne, 420 20
Montreal, 50 25 cks.
Naples, 155
Odessa, 52
Oporto, 30
Pasages, 203
Paysandu, 50
Pernambuco, 23
Rotterdam, 17
Santos, 85
Seville, 475 50 kgs. 25 brl.
Singapore, 10
Tampico, 31
Tarragona, 25 15 cks.
Trieste, 45
Vigo, 30
Bilbao, 20
Borga, 10
Calcutta, 71
Ghent, 35
Hiogo, 18
Ibrail, 10
Kingston, Ja., 30
Kobe, 250
La Guayra, 100
Malaga, 30
Manzanillo, 70
Maracaibo, 10
M Video 50
Newcastle, 30
N. Orleans, 50
New York, 150
Para, 20
Penang, 15
San Sebastian, 90 pks.
Sfax, 10
Stettin, 68
Sydney, 102
Yokohama, 50
Valencia, 10

Chemicals (*otherwise undescribed*)
Cape Town, 17 c. 3 q. £6
M. Video, 2 t. 8 3 17
Galatz, 1 5 7
San Francisco, 53 7 3 255
Odessa, 3 90
Constantinople, 9 12 1 48
Bourgas 1 1 3 5
Pernambuco, 3 10 19
Genoa, 4 cks. 7 brls. 68
Copenhagen, 1 11
Galatz, 10 3
Mersyne, 1 6
Gothenburg, 2 19
Melbourne, 6 35
Rotterdam, 1 9
Madras, 3 14
Trebizonde, 1 t. 10 9
Varna, 5 9 1 25
Piræus, 15 5
Montreal, 10 15 54
Calcutta, 52 1 131
Philadelphia, 29 14 745
Bombay, 115 brls. 5 562
Bremen, 1 29
Townsville, 2 10

China Clay—
Baltimore, 100 cks
Philadelphia, 350
Rio de Janeiro, 12
Boston, 918
New York, 624

Chloride of Lime—
Natal, 2 t. £12

Citric Acid—
Para, 1 c. £10
Brisbane, 2 q 5
E. London, 3 5

Coal Products—
Aniline Colours
New York, 22 cks.
Philadelphia, 5 brls.
Bombay, 2 cs.
Boston, 2
Aniline Dye
Barcelona, 4 cks.
Aniline Salt
Genoa, 1 t. 2 q.
Osaka, 10 kgs.
Piræus, 33 brls.
Hercules, 14 c.
Carbolic Acid
Malta, 2 cs. £21
New York, 11 t. 14 c. 285
Accra, 20 dms. 14
Hamburg, 5 315
Piræus, 3 10
Leghorn, 10 2 q. 35
Dunkirk, 5 316
Vera Cruz, 13 2 3
Madras, 1 7
Creosote Oil
Montreal. 25 brls.
Creosote Salts
Antwerp, 8 t. £25
Naphtha
Melbourne, 30 dms.
Tar
Victoria, 10 brls.

Copper Sulphate—
Galatz, 4 t. 18 c. £117
Varna, 1 24
Stettin, 4 18 3 q. 121
Lisbon, 10 2 2 240
Rouen, 16 9 418
Callao, 13 16
Gothenburg, 2 9 2 61
Christiania, 18 3 23
Danzig, 1 25

Disinfectants—
Accra, 2 c. £5
Bombay, 1 t. 5 9
Calcutta, 12 cs. 7
Demerara, 12 c. 10

Dried Blood—
Gd. Canary, 5 t. £39

Fluoric Acid—
Demerara, 3 c. £6

Glycerine—
Salonica, 10 c. £30
Habana, 4 12
Hiogo, 6 t.

Vera Cruz, 2 9 1 q. 106
Colon, 2 5 142
Yokohama, 15 10 327
Lisbon, 17 3 28
Rotterdam, 24 2 1,065
Montreal, 12 4 3 735
New York, 19 19 2 844
Calcutta, 2 97

Magnesia—
Genoa, 2 cs.

Magnesium Chloride—
Syra, 2 dms. £10

Manure—
Gd. Canary, 10 t. £126
B. Ayres, 1 5 c. 27

Oxalic Acid—
Boston, 13 t. 15 c. £365

Paint—
B. Ayres, 40 cs.
Caiffa, 12 kgs.
Callao, 100
Candia, 6 cks.
Egwango, 31
Gd. Bassa, 55
Havana, 6 24 dms.
Madras, 68
Santiago de Cuba, 3
Sierra Leone, 22
Tonghu Whf., 1,171
Algoa Bay, 10 cs.
Antwerp, 18 32
Beyrout, 20 brls.
Bilbao, 20 cks.
Bremen, 13
Cardenas, 8
Cienfuegos, 1 24
Dunkirk, 10
Iquitos, 2
Limon, 2 cs.
Sandy Point, 2
Valparaiso, 20 36
Santander, 10
New York, 184 pks.
Tampico, 14
Para, 10 cks.
Philadelphia, 1
Sulina, 2
Teneriffe, 32

Painters' Colours—
Alexandria, 20 dms.
Larnaca, 10 cks.
M. Video, 60 crts. 5
Para, 69 pks.
Toronto, 4 kgs. 2
Genoa, 100 bgs.
Gothenburg, 100 10

Paraffin Wax—
Boston, 100 cs.
Naples, 100 bgs.

Phosphorus—
Vera Cruz, 1 t. 7 c. £229

Potassium Bichromate—
Calcutta, 2 t. 3 c. £60
Havana, 1 4 35

Potassium Carbonate—
New York, 8 t. 14 c. £153

Potassium Chlorate—
Boston, 9 t. 15 c. £300
Gutujewsky, 15 450
Hong Kong, 15 26
Kalmar, 2 60
Oporto, 5 9
San Juan, P.R., 3 2 q. 7
Sydney, 5 145
Vera Cruz, 2 10 80

Potassium Muriate—
Gd. Canary, 1 t. £11

Potassium Prussiate—
Genoa, 3 cks. £44

Potassium Silicate—
Amsterdam, 1 t. 6 c. £10

Salammoniac—
Philadelphia, 5 t. 3 c. 3 q. £171
Smyrna, 8 14
Syra, 2 3
Trieste, 1 33

Salt—
Abonnema, 20 t.
Adelaide, 85
Anamaboe, 19
Antwerp, 87 bgs. / 100 t.
Baltimore, 50
Berracoe, 115
Boston, 300
B. Ayres, 16 10 c.
Buguma, 20
Calcutta, 1,798
Cape Town, 20 45 cs.
Cardenas, 30
Christiania, 10
Conakry, 9 16
Demerara, 90 10 25
E. London, 35 14
Egwanga, 81
Ghent, 50
Gd. Bassa, 5
Halifax, 650
Iquitos, 25
Kaflavik, 130
Kingston, 20
Lagos, 230
Lahou, 12 13
Manaos, 156 5
Montreal, 423 6
M. Video, 25
Newcastle, 193
New York, 308
N. Orleans, 100
Old Calabar, 20
Opobo, 50
Para, 5,047 15
Pt. Natal, 500 sks.
Quebec, 266
Rangoon, 400
Reykjavit, 108
Richibucto, 200
St. John, N.B., 450
Sherbro, 165
Trinidad, 40 15
Wellington, 10

Salt Cake—
Wellington, 3 t. £7

Saltpetre—
Bilbao, 5 t. £104
Santos, 1 4 c. 1 q. 23

Satinite—
Norrkoping, 53 t. 15 c. £170

Sheep Dip—
Boca, 4 t. £80
B. Ayres, 17 c. 1 q. 560
New York, 1 17 30
Sandy Point, 1 3 3 50

Soap—
Abonnema, 564 bxs.
Addah, 20
Alexandria, 46 cs. 9 cks.
Algoa Bay, 300 1
Antwerp, 36
Asuncion, 4
Bakana, 100
Bangkok, 25
Belize, 550 501
Bloemfontein, 10
Bluefields, 175
Bombay, 265
Boston, 50 brls.
Buguma, 560
Cairo, 60
Cape Town, 1,900 195 cs.
Calcutta, 25 500 bdls.
Christiansted, 1
Constantinople, 207
Copenhagen, 60
Corfu, 5
Curacao, 25
Delagoa Bay, 612 30
Demerara, 1,929
E. London, 2,219 40
Gablonz, 4
Gibraltar, 470
Greytown, 300
Gd. Bassa, 71
Gd. Canary, 438
G. Polo, 25
Grenada, 300
Hamburg, 50 dms.
Hong Kong, 120 kgs. / 250 bxs.
Huanchaco, 1
Iquique, 20
Iquitos, 408
Karachi, 775 50
Kingston, J., 1,300
Kotonou, 50
Lagos, 116
Lahou, 50
Little Popo, 25
Malta, 30
Macassar, 650
Manaos, 1,300
Manta, 400
Mossel Bay, 500
Montreal, 11 18 pks.
Para, 250
Pt. Elizabeth, 800 25 bdls.
Principulca, 90
Punta Gorda, 200
Rangoon, 7
Rio del Rey, 500
Rotterdam, 103
St. John's, N'fd, 20 5
Shanghai, 550 1,100
Surinham, 25
St. Kitt's, 180
St. Thomas, 2
San Juan del Sur, 200
Singapore, 390
Tangiers, 110
Tonghu Wharfe, 40
Toronto, 2
Valparaiso, 20 kgs. / 110 bxs. 3
Winburg, 50

Soda Ash—
Aalborg, 150 bgs.
Barcelona, 30 66 cks.
Bombay, 8
Boston, 170
B. Ayres, 50 brls.
Calcutta, 30 kgs. 134
Chefoo, 50
Copenhagen, 300 bgs.
Corfu, 45
Genoa, 500
Gothenburg, 150 22
Hiogo, 57
Kobe, 282
London, 80
New York, 15 tcs. 35
Oporto, 25
Patras, 20
Paysandu, 50 brls.
Philadelphia, 96 tcs.
Piræus, 70
Remosa, 15
Rio de Janeiro, 500
San Francisco, 644
Valparaiso, 50
Venice, 200
Yokohama, 150

Soda Crystals—
Arica, 20 kgs.
Boston, 250 brls.
Calcutta, 25
Cape Town, 17 28 cks.
Gibraltar, 25
Karachi, 20
Kobe, 100
Montreal, 100
New York, 280

Sodium Bicarbonate—
Alexandria, 50 dms.
Amsterdam, 20 kgs.
Antwerp, 100
Barcelona, 205
Brisbane, 40
Calcutta, 525
Copenhagen, 30 7 brls.
Danzig, 25
Genoa, 75 4 cks.
Gutujewsky, 800 37
Karachi, 225
Kobe, 850
Montreal, 850 bgs. / 75 kgs.
Naples, 100
Odessa, 300
Rosario, 30
Rouen, 240 dms. 17
Seville, 40 kgs.
Toronto, 200 bgs.
Vancouver, 50 kgs.
Yokohama, 200

Sodium Carbonate—
Amsterdam, 20 brls.
Boston, 112
New York, 126
Para, 4 cks.
Rotterdam, 50

Sodium Chlorate—
Gutujewsky, 100 kgs.

Sodium Hyposulphite—
Hong Kong, 20 kgs.
Tampico, 300

Sodium Silicate—
Seville, 33 brls.

Sodium Sulphide—
Wellington, 1 t. 18 c. £10

Starch—
Iquitos, 12 cs.

Sulphate (Alumina)—
Calcutta, 8 t. 11 c. £28

Sulphur—
Boston, 175 t. 7 c. £647
Ghent, 5 22
Montreal, 75 3 320
Natal, 1 10 86
St. John, N.B., 100 1 42

Superphosphates—
Bilbao, 200 t. £550
Brisbane, 5 13
Gd. Canary, 11 38
Riga, 2,075 4,150

Stannous Chloride—
Demerara, 1 t. 4 c. £93

Tartaric Acid—
Tampico, 4 c. £14

Tin Crystals—
New York, 2 t. 5 c. 3 q. £147

Varnish—
Alexandria, 17 pks.
Antwerp, 14 cks.
Batavia, 5 cs.
Bilbao, 2
Boston, 18
Demerara, 4 dms.
Tonghu Wharfe, 26

White Lead—
Bluefields, 100 kgs.
Vera Cruz, 2 cks.

MANCHESTER.

Week ending August 23rd.

Caustic Soda—
Porto Alegre, 50 dms.

Chemicals *(otherwise undescribed)*
Mainz, 2 kgs. / 5 cks.

Coal Products *(otherwise undes.)*—
Switzerland, 24 cks.

Coal Products—
Aniline Oil
Germany, 3 dms.
Russia, 40
Aniline Salt
Russia, 28 cks.
Naphthylamine
Germany, 28 cks.
Pitch
Belgium, 198 t.
Toluol
Germany, 20 dms.

Dyewood Extract—
Norway, 2 cks.

Gannic Acid—
Germany. 2 bgs. / 8 cks.

Glue—
Belgium, 4 cks.
Holland, 4

Glycerine—
Germany, 10 crbys.

Paraffin Wax—
Alexandria, 20 cs.
Holland, 4

Salt—
Melbourne, 200 t.

Soda Crystals—
St. John, N.B., 67 brls.

Sodium Bicarbonate—
Germany, 60 kgs.

GLASGOW.

Week ending August 24th.

Ammonium Carbonate—
Christiania, £334

Ammonium Sulphate—
Amsterdam, 190 t.
Antwerp, 49 19 c. 2 q.
Colombo, 16 2 3
France, 203 16 3
Hamburg, 101
Nantes, 10 1 1
Philadelphia, 50 4 1
Riga, 30 11

Bleaching Powder—
Calcutta, 72 t. 5 c.

Bones—
Beauvais, 8 t. 14 c. 3 q.

Borax—
Johannesburg, £32
Rotterdam, 18

Carbonate of Lime—
Lisbon, 3 t. 18 c. 1 q.

Castor Oil—
Sydney, £85 10s.

Chemicals *(otherwise unaescribed)*
Rotterdam, £4 6s.

Coal Products—
Alizarine Colours
Ipswich, £5
Alizarine Oil
Lisbon, £39 10s.
Pitch
Hamburg, 10
Madras, £33 15s.
Montreal, 117
Rouen, 55
Tar
Bombay, £25
Calcutta, 283
Christiania, 60 brls.
Danzig, 120
Rangoon, 22
Riga, 203
U.S.A., 45

Tar Oil
Antwerp, £105
Cottonseed Oil—
Sydney, 2 t. 10 c.
Dyestuffs (*otherwise undescribed*)
Lisbon, £145
Dyestuffs—
Extract
Lisbon, £20
Indigo
Ipswich, £90
Farina—
Antwerp, £35
Ferro Silicon—
Russia, 35 t.
Gelatine—
Philadelphia, £209
Gutta Percha—
Amsterdam, £28
Iodine—
Rotterdam, £550
Lead Nitrate—
Paris, £101
Linseed Oil—

Bombay,	1 t.		
Constantinople,	3	9 c.	2 q.
Cuba,	1	19	2
Sydney,		9	3

Litharge—
Johannesburg, £53
Logwood Extract—
Sydney, £22 17s.
Manganese Oxide—
Paris, 5 t. 2 c.
Manganese (Recovered)—
Antwerp, 11 t. 15 c.
Rotterdam, £187
Manure—
U.S.A., 15 t. 6 c. 2 q.
Paint—

Alexandria,	£231		
Brisbane,	59	10s.	
Colombo,	151		
Constantinople,	121		
Cuba,	54		
Havana,	95		
Lisbon,	10	15	
Rangoon,	27	15	
Townsville,	38	10	

Painters' Colours—

Amsterdam,	£4	
Calcutta,	28	
Cape Town,	49	
Mossel Bay,	38	14s.
Newcastle, N.S.W.,	224	
U.S.A.,	178	

Paraffin Wax—

Cape Town,	£26	
Italy,	1,187	
Leghorn,	11,172	
Riga,	60	
Rouen,	21	
U.S.A.,	738	

Potassium Bichromate—

Antwerp,	£352	
Boston,	287	
Christiania,	31	
Ipswich,	25	15s.
Madras,	132	
New York,	635	
Paris,	666	
Philadelphia,	290	
Reims,	105	
Rouen,	339	

Potassium Sulphate—
Colombo, £83
Red Lead—
Lisbon, £59
Salt—
Rangoon, 2 t. 10 c.
Soap—

Bombay,	2 t.		
Colombo,	4	2 c.	1 q.
Egypt,	2	10	3
Johannesburg,	10		

Sodium Bichromate—

Antwerp,		19 c.	1 q.
Lisbon,		18	3
Nantes,	10 t.		2
New York,	4	14	1
Paris,	7		3
Rouen,	5	3	1

Sulphuric Acid—
Rangoon, £342
Tallow—

Alexandria,		17 c.	
Rangoon,	6 t.	1	3 q.
Rotterdam,	3	7	1

Varnish—
Sydney, £55
Waste Salt—
New York, 60 t.
White and Red Lead—
India, £24

HULL.

Week ending August 19th.

Alkali—
Bergen, 6 cks.
Ammonium Sulphate—

Antwerp,	100 bgs.	
Hamburg,	384	
Stettin,	1,000	

Basic Slag—

Gothenburg,	1,016 bgs.	
Libau,	3,122	

Borax—
Uleaborg, 1 ck.
Caustic Soda—
Danzig, 50 dms.
Wyburg, 11 cks.
Chemicals (*otherwise undescribed*)

Amsterdam,	82 cks.	
Antwerp,	26 cs.	
Bergen,	5	
Bombay,	1,021	35 pks.
Christiania,	2	218 slbs.
		1
Copenhagen,	10	10 cs.
Gothenburg,		10
Hamburg,	10	5
Karachi,		1
New York,		20
Riga,	4	
Rotterdam,	26	20
Stettin,	7	67
St. Petersburg,		20 btls.
Uleaborg,	37	1
Wyburg,		1

Coal Products—
Creosote

Bjorneborg,	15 brls.	
Copenhagen,	21 cks.	
Raumo,	5	
Rouen,	25	

Pitch

Antwerp,	60 t.	
Helsingfors,	12 cs.	
Karachi,	244 cks.	

Tar

Amsterdam,	22 cks.	
Antwerp,	8	
Copenhagen,	12	
Gothenburg,	5	

Cottonseed Oil—

Amsterdam,	10 t.	1 c.
Antwerp,	6	1
Copenhagen,	10	9
Dunkirk,	2	2
Gothenburg,	2	10
Hamburg,	6	1
Rotterdam,	5	4
Rouen,	1	14
Stockholm,	11	

Dyestuffs (*otherwise undescribed*)

Christiania,	30 bgs.	
Norrkoping,	1 cs.	

Guano—
Dunkirk, 100 t.
Linseed Oil—

Antwerp,	6 t.	7 c.
Bombay,	12	5
Christiania,	5	4
Hamburg,	2	6
Karachi,		12
Rotterdam,	5	

Manure—

Dunkirk,	100 t.	
Libau,	1,042 bgs	

Paint—

Antwerp,	15 cks.	
Bombay,	40	

Painters' Colours—

Amsterdam,	4 cks.		
Antwerp,	126	2 cs.	12 dms.
Bergen,	4	1	
Bombay,	941	103	20
Bremen,			15
Christiania,	15	1	
Copenhagen,	8	3	
Danzig,		1	
Dunkirk,	9	1	
Ghent,	43		54
Hamburg,	12		1 pk.
Harlingen,	2		
Helsingfors,	2		
Karachi,		20	
Libau,	4		
New York,	156		
Raumo,	20	1	
Riga,			19
Rotterdam,	2	1	5
Rouen,	3		
Stettin,	6		
St. Petersburg,	63		

Rosin—
Antwerp, 5 cks.
Soap—

Drontheim,	1 cs.	
Helsingfors,	12	
Stockholm,	1	

Tallow—
Gothenburg, 6 cks.
Varnish—

Antwerp,	16 cks.	4 cs.
Bombay,	135	
Danzig,	1	
Ghent,	1	
Helsingfors,		6
Stettin,	7	

Waste Salt—
Amsterdam, 20 brls.

TYNE.

Week ending August 19th.

Alkali—

Amsterdam,	10 t.		2 q.
Riga,	50	3 c.	2
Rotterdam,	4	18	3

Ammonia—
Gothenburg, 3 t. 9 c. 3 q.
Ammonium Muriate—
Stockholm, 1 t.
Ammonium Sulphate—
Genoa, 7 t. 10 c.
Antimony—

Barcelona,	1 t.	
Riga,	1	
Rotterdam,	9	

Barium Binoxide—

Antwerp,	10 t.	15 c.	2 q.
Rotterdam,	9	2	2

Barium Carbonate—
Hamburg, 150 t.
Blanc Fixe—
Antwerp, 2 t. 1 q.
Bleaching Powder—

Amsterdam,	15 t.	6 c.	3 q.
Copenhagen,	7	16	3
Drontheim,	9	15	
Gothenburg,	18	3	2
Helsingfors,	25	4	
Riga,	15	17	2
Rotterdam,	6	3	6

Bone Grease—
Genoa, 5 t. 8 c. 3 q.
Castor Oil—
Montreal, 4 c. 1 q.
Caustic Soda—

Amsterdam,	5 t.	6 c.	1 q.
Antwerp,	24	19	
Barcelona,	25	6	1
Copenhagen,	4	7	
Drontheim,	4	7	
Genoa,	37	8	2
Gothenburg,	9	18	
Hamburg,	10	10	
Helsingfors,	5		
Rotterdam,	4	16	2
Stockholm,	20	1	1
Venice,	29		1

Chemicals (*otherwise undescribed*)
Genoa, 6 c. 1 q.
Coal Products—
Carbolic Acid
Rotterdam, 8 c. 1 q.
Tar
Vardo, 2 t. 3 c.
Colours—
Genoa, 10 c. 2 q.
Iron Oxide—
Genoa, 2 t. 5 c.
Linseed Oil—
Montreal, 1 t. 1 c.
Litharge—

Gothenburg,	1 t.	8 c.	1 q.
Hamburg,		6	
Stockholm,	2	15	

Magnesia—

Antwerp,		8 c.	3 q.
Barcelona,	7 t.	17	2
Genoa,	3	16	1
Hamburg,	1		2

Manure—
Riga, 200 t. 2 c. 2 q.
Mercuric Oxide—
Genoa, 10 c.
Molasses—
Rotterdam, 1 q.
Paint—

Antwerp,	1 t.	7 c.	
Bergen,		15 cs.	
Hamburg,	1		
Helsingfors,		5 c.	
Rotterdam,	1	10	

Painters' Colours—

Hamburg,		14 c.	2 q.
Rotterdam,			11 dms.

Red Lead—

Antwerp,	3 t.		3 q.
Bergen,	5	9 c.	2
Copenhagen,	2	2	1
Genoa,	12	7	
Gothenburg,	4	9	
Hamburg,	7	6	1
Stavanger,	1	18	3
Stockholm,	16		1

Salammoniac—
Genoa, 11 c. 3 q.
Soda—

Amsterdam,	10 t.	
Rotterdam,	20	
Vardo,	4	

Soda Ash—

Antwerp,	2 t.	2 c.	1 q.
Gothenburg,	50	7	1

Sodium Silicate—
Venice, 4 t. 2 c. 1 q.
Sodium Sulphate—

Aalborg,	25 t.
Frano,	320
Stockholm,	25

Sulphur—

Gothenburg,	60 t.
Riga,	135

Superphosphates—

Frederikshavn,	746 t.	18 c.	1 q.
Kalmar,	233	3	
Rostock,	600	5	3

Tallow—
Genoa, 6 t. 17 c. 2 q.
White Lead—
Copenhagen, 1 t. 11 c. 3 q.

GOOLE.

Week ending August 16th.

Alkali—
Rotterdam, 1 ck.
Caoutchouc—
Antwerp, 1 ble.
Chemicals (*otherwise undescribed*)

Antwerp,	16 cks.	
Rotterdam,		2 dms.

Coal Products (*otherwise undes.*)—

Amsterdam,	16 cks.		
Antwerp,	7	2 cs.	
Boulogne,	46		6 tins
Ghent,	4		
Rotterdam,	137	2	30 dms.

Coal Products—
Benzol
Boulogne, 75 cks.
Creosote
Bordeaux, 230 t.
Dyestuffs (*otherwise undescribed*)

Boulogne,	1 cs.	
Ghent,	3 cks.	
Hamburg,	8	2

Manure—

Hamburg,	300 bgs.
Rotterdam,	100

Painters' Colours—

Antwerp,	2 cs.	
Boulogne,		8 tins
Ghent,	1 ck.	1
Rotterdam,	4	9

GRIMSBY.

Week ending August 19th.

Caoutchouc—

Esbjerg,	4 bs.
Malmo,	1

Chemicals (*otherwise undescribed*)
Hamburg, 5 kgs.
Coal Products (*otherwise undes.*)—
Dieppe, 92 cks.
Manure—

Esbjerg,	3,129 bgs.
Hamburg,	1,334

Painters' Colours—

Antwerp,	1 ck.	1 cs.
Hamburg,	9	4
Rotterdam,	1	

PRICES CURRENT.

WEDNESDAY, Aug. 30, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	18	12	6
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	6	3
,, ,, (grey) Hull ,,	12	5	0
Aniline Oil (pure) per lb.	0	0	4¾
Aniline Salt ,, ,,	0	0	4¼
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/- to 60/-		
Bleaching Powder, 35 % nett ,,	4	15	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	8
,, 50/90 ,,	0	0	10½
Carbolic Acid (crude 60°) ,,	0	2	1
,, (crystallised 40°) per lb.	0	0	7½
,, (liquid 95/97%) per gallon	0	1	1
Creosote (ordinary) ,,	0	0	3¾
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	11	0
Solvent Naphtha, 90% at 160° per gallon	0	1	2½
Copper per ton	76	15	0
,, Sulphate ,,	23	15	0
,, Oxide (copper scales) ,,	68	0	0
Glycerine (crude) 80% ,,	28	10	0
,, (distilled S.G. 1260°) ,,	45	0	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	16	2	6
,, Litharge Flake (ex ship) ,,	17	10	0
,, Acetate (white ,,) ,,	21	15	0
,, ,, (brown ,,) ,,	18	10	0
,, Carbonate (white lead) pure ,,	22	0	0
,, Nitrate ,,	22	0	0
Lime, Acetate (brown) (ex ship) per ton	5	0	0
,, ,, (grey) (ex ship) ,,	7	15	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	18	10	0
Linseed ,,	23	0	0
Stearine ,,	27	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	10	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	23	10	0
,, ,, ,, 75/80 % ,,	18	10	0
,, Potash Hydrate Liquid 50 % ,,	12	0	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	8
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	8	15	0
Silver (metal) per oz.	0	2	3 7/16
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	2	6
,, ,, (Soda Crystals) ,, ,,	2	12	6
,, Acetate (ex-ship) ,,	13	7	6
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	8	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	8	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	7	0	0
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	4	2	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	6
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate per lb.	0	0	6
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	5	0
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide (crystals) ,,	6	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4½
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	7	5	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	26	10	0
Tin Crystals per lb.	0	0	10½
,, English Ingots per ton	144	10	0
Zinc (Spelter) ,,	22	10	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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CURRENT TOPICS.

INDUSTRIAL WAR OR PEACE?

THE proceedings of the Trade Unions' Congress, held this week at Plymouth, has been characterised by two episodes, which seem at first sight to belie the essentially militant spirit of Trade Unionism. We do not see anything derogatory to the principles of Unionism, however, in this apparent inconsistency, because it denotes a tendency to reshape the policy of Unionists on progressive lines.

In the first place, the Congress expressed a decided opinion that to go to war in the Transvaal would be unwarrantable, and even a disgrace. As a matter of fact, this is entirely a question of personal opinion, but such at all events is the opinion of the Congress.

Now the very reasons, which evidently form the foundation of this opinion, have a close bearing upon the policy which the president urged upon the Congress in his address, and we would earnestly advise those who always cry for war in the management of their own affairs at home, to view their actions in the same light as they do the Transvaal question. If they will do so sincerely, we feel sure they will see the unerring truth and foresight of Mr. Vernon's exhortation.

If testimony in support of the honesty of our convictions is needful, it is afforded by the fact that although Mr. Vernon showed in his attack upon dangerous chemical industries that he spoke from hearsay rather than observation, and in consequence was guilty of blunders and inaccuracies, still we refrain from scoffing at his denunciation of something he is self-evidently incapable of judging. The reasons for so doing are, that we must make allowance for his being a substitute, called upon to deliver an address without being given due time for preparation; and also because he showed himself a careful thinker and wise counsellor when speaking on subjects with which he was familiar.

One, and perhaps one of the most important, of these subjects, was the vexed question of a living wage. He contends that in the labour question the remuneration of the labourer is of paramount importance, but the point will never receive due recognition until the workers alter their tactics. Industrial revolt has been very prevalent of late, and the employers are now using federation as a means of protection against the federated employees. This means industrial warfare, and Mr. Vernon is emphatic in discouraging it, because he evidently has a wholesome hatred of a system which sets man against man, and creates all the attendant evils which such a condition involves, without materially benefiting those who attack. Would it not better, he asks, to remove the causes of war, rather than prepare for it? His convictions lead him to answer in the affirmative, and to indicate the way to set about achieving this end. Employers will have to alter their attitude if Mr. Vernon's policy is honestly adopted.

THE CONSERVATION OF WATER SUPPLIES.

A dry summer always leads to heart-searchings concerning the water supply of towns, in regard to either quality or quantity, and it is not always easy to say which is the more important aspect. Personally, we incline to a little and good, rather than a lot and that of a doubtful quality. When Manchester tapped Thirlmere, it was thought that the city had combined plenty and purity most effectively, so that it is rather surprising to learn that there are only 56 day's supply left. Compared with southern cities, however, the Manchester problem is comparatively simple. It is only a case of available, as opposed to potential, supply. There is plenty of water, and the Corporation are profiting by the gentle warning they have received, by taking steps to increase their transition facilities.

In the South the difficulty is the danger of the natural supplies becoming deficient through industrial interference. Hitherto it has been the practice of colliery companies to exclude the water contained in the permeable strata, through which the shaft passes, by lining the shaft. During the sinking of a new shaft it has been necessary to keep down the water by pumping, and this has in many cases dried the neighbouring wells for a time; but when the lining was placed in position the pumping was stopped, and the water in the soil returned to its normal level. It seems, however, that at collieries now being opened in certain parts of the country, this plan is being given up, and it is proposed instead to pump in perpetuity, a separate shaft being in some cases sunk for this purpose only,

In consequence, many millions of gallons of water are being pumped to waste daily, and in one case strong springs, four miles from the pits, have ceased to flow. The County Councils' Association is trying to arrange for concerted measures being taken, to protect these natural supplies from being wasted in this manner.

REPORT ON DANGEROUS TRADES.

THE final report of the Departmental Committee appointed to inquire into certain miscellaneous dangerous trades was issued on Wednesday Altogether 295 factories and workshops have been visited since the Committee's appointment, and 259 witnesses have been examined, the inquiry having extended over a period of over four years.

Basic Slag.—The Committee recommend that no young person or woman should be employed in packing it, and that every hopper or shoot where the slag is packed should be provided with a hood and a fan to draw the dust away

Salt.—Captain May mentions in a letter that the Cheshire Salt and Alkali Company had endeavoured to discover some practicable mode of fencing the pans, but had failed in their attempts The Committee suggested for experiment a movable rail resting in a groove on an inclined plane. This rail when at rest should project about 18 inches to two feet over the pan ; it should be so constructed that it would run up to the edge of the pan, when the rake, catching it by a small hook on the shaft, was being drawn in to the side. Experiments were made by the Salt Union, Limited, in their Worcestershire district, which proved this method of fencing impracticable. In June last Messrs. Brunner, Mond, and Co answered an inquiry in the following terms :—"We have lowered the standing platform with three of our pans, so as to give three feet from the standing floor to the top edge of the salt pan. These have been working since your visit, and we are glad to say that we have suffered no loss in the output of the pans in consequence, although the men at first, of course, grumbled slightly. As the labour will be certainly rather more, lifting the salt from a less advantageous position, men on twelve hours' shifts may find rather more inconvenience, but the extra labour required is not much, and we think men would soon accustom themselves to the altered position of the work." After the receipt of this letter the committee sought the official opinion of two trade unions, whose members are largely salt workers. The representatives of these bodies are strongly opposed to the raising of the pans or the provision of any rail. They affirm that the dangers to be guarded against do not occur in drawing the salt, but are chiefly to be apprehended in wheeling salt and in passing by the pan. In addition to the measures of protection against the consequences of slipping or over-balancing the Committee draw attention to precautions which would diminish the liability to the occurrence of such accidents.

Lead.—The use of lead in various forms in print and dyeworks is dealt with at length. The recommendations set forth are practically the same as those now in force.

The process of dyeing with *arseniate of soda*, commonly used in the turkey red works in Manchester, Heywood, Bolton, Rochdale, and Farnworth, is dealt with and the dangers of working emphasised, but as no cases of illness have been brought to the notice of the Committee, except in one instance, they do not consider it necessary to recommend the Secretary of State to certify this industry as a dangerous trade.

Selected Correspondence.

COMMERCIAL ARBITRATION.

(To the Editor of The Times).

Sir,—By your favour I would like to make some remarks on this question, the subject of correspondence in your issue of the 24th ult.

It cannot be denied that the particular method of arbitration under discussion, where each disputant selected a friend to act, nominally as an arbitrator, but really as an advocate (the two arbitrators nominating an umpire), is open to the reproach of Lord Justice Darling. It was, however, to avoid such defects and to offer to business men an impartial tribunal with skilfully drawn rules and other safeguards that the Corporation, with the co-operation of the Chamber of Commerce, established the Guildhall Chamber of Arbitration (which, I may add, is maintained at the sole cost of the former).

This organisation provides for the utmost simplicity of procedure with the greatest security for fairness and impartiality. Under its rules, which were settled by one of the ablest Judges (Mr. Justice Smith, of course before his elevation to the Bench), disputants may agree to have one or three arbitrators, in the latter case the concurrence of two being sufficient ; but, as a matter of fact, in every case submitted to the chamber, disputants have decided upon having only one.

Disputants have the advantage of an official list of 1,300 arbitrators to select from, but they usually leave the selection to the Registrar, or request him to suggest a few names. Thus the risk of partisanship, such as that complained, is practically elimated.

In case of any doubt or difficulty arising as to the admission of evidence, the Registrar (who must be a barrister or solicitor) is at hand to assist the arbitrator. Indeed it is the very excellence of the organization of the chamber which excites the antagonism of the legal profession. Despite this, however, and the assertion of the legal Press that the public prefer litigation to arbitration, I venture to affirm that the spirit of friendly arbitration is fimly established and is growing. A well-known solicitor publicly stated, not long ago, that where he used to have 40 writs he had now perhaps five. Such observations are indeed not uncommon. In a certain sense one regrets that the interests of so useful a portion of the community as solicitors should be injured by such a reform, but as to this there is some doubt, for scores of solicitors in the best practice have declared that they do not care for litigation and discourage it among their clients. At all events, the profession have exhibited no liking for the Chamber of Arbitration ; at first the excuse was that the chamber, in its desire to keep down expenses, had not sufficiently safeguarded solicitors' costs, but when this cause of complaint was removed they still kept, and keep, aloof.

Possibly it was some such opposition as this which caused the French tribunals of commerce to provide for a class of specialists, not necessarily lawyers, to prepare evidence and assist persons having recourse to the tribunals. I trust the commercial community here will not be forced to adopt this plan.

By way of an object-lesson, allow me to mention a recent case of arbitration with which I happen to be familiar. It was one involving no legal technicalities, but with many points of dispute needing business experience, an aptitude for grasping details, and a sense of impartiality and fairness. The parties met at the appointed time—no lingering about Courts hours or days waiting for the case to be called ! —the evidence was stated, irritating remarks softened by the arbitrator, and the whole proceedings were completed in a few hours. I believe that in a Court of law, where exhaustive legal and technical evidence would have been insisted upon, this case would have occupied as many days as it did hours, and with this further disadvantage—that every day the animosity between the parties would have increased, and, of course, the expenses would have swollen enormously. The object desired by all in this case—that is, an equitable decision—was secured. It is easy to understand that, if one of the parties to a dispute were conscious of having a weak case, he might prefer "the glorious uncertainty of the law" ; but for those persons who are parties to a legitimate dispute (unavoidable in business), and who wish to have it settled fairly and impartially, there can be no doubt of the superiority of the Guildhall Chamber of Arbitration.

Not even the new Commercial Court, which was brought into existence at the instigation of *The Times* soon after the Chamber of Arbitration was established, and which has been of great service to the commercial community, will, in the long run, check the growth of arbitration.—I am, sir, yours faithfully, Henry Clarke.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Manufacture of Caustic Alkali and Halogen Gas and Apparatus therefor. C. E. Acker. 16,935. August 21.

Manufacture of Caustic Alkali and Halogen Gas and Apparatus therefor. C. E. Acker. 16,947. August 21.

Apparatus for Heating or Cooling Air and other Gases or Liquids and for Generating Steam. C. J. O. Bergstrom. 16,957. August 21.

Manufacture of Caustic Alkali and Halogen Gas and Apparatus therefor. C. E. Acker. 16,963. August 21.

Preservative Composition for Coating Wood, Metal, and the like. J. T. Henderson and G. A. Brown. 16,981. August 22.

Apparatus for Treating Oleaginous Seeds. A. Euston. 17,012. August 22.

Hydraulic Presses for Extracting Oil from Oleaginous Seeds. A. Euston. 17,013. August 22.

Hydraulic Press for Extracting Oil from Oleaginous Seeds. A. Euston. 17,014. August 22.

Manufacture of Carbide of Calcium. P. Guadagnini. 17,019. August 22.

The Treatment of Ores. Guy de Bechi and The General Metal Reduction Co., Ltd. 17,057. August 22.

Destructor Furnaces. J. Wilkie and Beaman & Deas, Ld. 17,083. August 23.

Rendering Ore pliable by Chemical Means. K. Miller. 17,183. August 24.

Manufacture and Use of Atmospheric Nitrogen. R. Marston and J. Parr. 17,234. August 25.

Substitute for White Lead in the Preparation of Paint. G. von Reinolts. 17,244. August 25.

Secondary Batteries. H. Leitner. 17,261. August 25.

Improvements in Zinc or Galvanising Baths. A. P. Eggis von Eckes. 17,349. August 26.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements Relating to the Extraction of Chromium by Electrolysis. J. F. L. Moeller, 14, Palmer-street, London, and E. A. G. Street, 60, Boulevard Haussmann, Paris. Eng. Pat. 18,743. September 1, 1898.

The patentees aim at obviating two difficulties which affect the electrolytic production of chromium, namely, the expensive platinum anodes (carbon being useless), and the excessive production of bye-products. Use is therefore made of an electrolyte which contains chromium salts having a sulphate base, whereby leaden anodes can be used. Even then it is necessary to avoid the presence of an undue proportion of sulphuric acid. Generally speaking it is not desirable to exceed the proportions permissible in lead-plate accumulators. The cell may be operated either with or without a porous partition. The electrolyte in the cathod side, when working with a partition, may conveniently contain water, chromium-soda alum, and sulphate of soda, using 1½ kilo. of each, the water being rendered acid by 5% of its weight of sulphuric acid at 66° Bé. The cathode consists of a roll of sheet copper or brass. The anode contains water acidulated in the above described way. The bye-products are utilised and reduced to a minimum by drawing off the anode liquid in small quantities, and treating with a current of sulphurous acid, after which sufficient bichromate of soda is added to form a neutral chromium-soda alum, the combination being effected by running, in a thin stream, into an excess of melted sulphur, which in due course is recovered. This liquid is fed to the cathode compartment, which becomes excessively rich in sulphate of soda. By cooling the liquid during its circulation, however, the excess of sodium sulphate is crystallised out, and the contents of the cathode compartment kept constant. When chromium sulphate is used instead of the alum certain additional precautions have to be observed, and these are fully set forth in the specification.

Improved Method of Effecting the Purification of Sewage Effluents and in Appliances employed therewith and therefor. R. H. Reeves, "Cedardale," Putney Bridge-road, Surrey. Eng. Pat. 20,118. September 22, 1898.

The land is plotted out into sections which can be supplied in turn with the crude effluent from the precipitation tanks at the sewage works. The plots themselves are also provided, at different places over their area, with catch drains or small collecting basins, the bottoms of which are floored, while the sides are composed of perforated pipes or other material which will permit the infiltration of the partly purified effluent. From the centre of the floor of the basin a pipe conveys the effluent straight down to a gravel or sand stratum, which it enters from the perforated sides of the feed pipe. After that it presumably gets away wherever it can. There are four figures.

Improvements in the Manufacture of Sulphurous Acid, Sulphuric Acid, and Sulphuric Anhydride. G. W. Johnson, 47, Lincoln's Inn Fields, London (communicated by Verein Chemische Fabriken, Manheim, Germany). Eng. Pat. 17,266. August 10, 1898.

This patent claims to turn to practical account the patent originally taken out by W. Hunt in 1853, and upon which Prof. Lunge experimented without success in 1877 and 1883. Sulphuric anhydride is produced direct from the pyrites burner gases by passing the mixture of sulphur dioxide and air over heated burnt pyrites, technically known as "burnt ore." In carring out the process the pyrites are burnt in the usual type of furnace, the air necessary for combustion being thoroughly dried before it enters the furnace. The mixture of sulphurous acid and air which results from the combustion is conveyed at once, and while highly heated, over a contact substance containing ferric oxide (such as burnt ore), which is deposited in an oxidation chamber. Moreover, it is claimed that the burnt ore extracts and retains the arsenic present in the gases, if the production of comparatively large quantities of sulphuric acid be avoided.

A New or Improved Igniting Composition to be employed in the Manufacture of Matches. Paul Ward, 57, Chancery-lane, London. Eng. Pat. 17,957. August 20, 1898

Amorphous phosphorus is substituted for the poisonous white form in a tipping paste composed of glue, powdered glass, whiting, paraffin wax, chlorate of potash, and sugar or lamp black. For damp climates 5% of bichromate of potash is added. Particulars are given for preparing and mixing the ingredients. The finished match ignites on any ordinary friction surface.

THE PETROLEUM SPIRIT EXPLOSION.

REGULATIONS FOR WOOLLEN MILLS.

THE adjourned inquest reported last week was resumed on Monday. The first witness called was George Rothwell. He stated that the liquid used was deodorised naphtha It was not a patent oil, and the only secret about it was the method in which it was employed for finishing woollen cloth. The vapour from it had a stupefying effect upon those who worked near it, but neither Rothwell nor the other man who had worked with it had complained of anything but a feeling of drowsiness after working among it for some time. The firm was not a large user of the liquid. The machine, or soaper, house was apart from the main buildings of the mill, the nearest building being the boiler-house, 28ft. away. The bulk of the liquid was kept in barrels in a field near the soaper-house, but there was usually about 240 gallons in the soaper-house ready for use.

In reply to Mr. C. F. Wright the witness said there was no mechanical ventilation to the soaper-house, but there was a ventilating shaft from the top of the machine to the open air. He had never taken samples of the air, but the vapour, being heavier than the air, would lie low down. The floor of the house was of stone flags, and the men worked in it in their clogs or ordinary walking shoes. He saw no reason why the machine should not be worked in a gas-tight casing, but they had not succeeded in getting such a casing.

In reply to Mr. Wright witness said that the reserve of petroleum in the soaper-house did not take fire as a result of the explosion.

George Pilkington, analytical chemist, of Bury, said he had examined a portion of the liquid. It was a very light liquid, distilled from American petroleum, with a density of ·696, taking water as unity. It had a very low boiling point, and gave off an inflammable vapour at all temperatures.

By the Deputy Coroner: The liquid could not be said to have any flash-point; it was so very low. It would ignite at a temperature lower than freezing point.

By Mr. Wright: An electric spark might explode it. A red-hot iron would quickly cause an explosion. Black-hot iron would not cause the vapour to explode; there must be a flame or a spark.

This concluded the evidence, and the Deputy Coroner explained that he had extended the inquiry beyond the statutory obligation in order that information, which might be useful in the future, could be elicited. There was, so far as they could ascertain, no criminal negligence on the part of anyone. The employers knew that the process in which this liquid was used was dangerous, and had affixed notices to that effect on the building.

The jury consulted together in private for about half-an-hour, and eventually returned a verdict of accidental death.

The Deputy Coroner said the jury wished to say that, though they they did not for a moment suggest that Messrs. Kenyon and Son were responsible in any way, or to blame, they thought the experience obtained should result in the imposition of some regulations for such processes in woollen mills.

Mr. Wright undertook to convey the recommendation to the Home Office. The matter had been under consideration for two or three years.

THE TYNE CHEMICAL TRADE.

THE following list has been specially abstracted from the yearly analysis made by the Tyne Improvement Commissioners of goods imported and exported from the Tyne in 1898. As the figures include coastwise shipments, the coastwise total is given as well as the total for the year, the difference being the amount of foreign imports or exports as the case may be. The total for 1897 is given for the purpose of comparison :—

IMPORTS.

Description of Goods.		Coastwise.	Total, 1898.	Total, 1897
Candles	Tons.	758	766	881
Cement	,,	373	1,077	682
Barytes	,,	1,572	4,187	3,663
Nitre Cake and Salt Cake	,,	12,169	12,623	6,210
Soap	,,	3,116	3,145	2,754
Arsenic	,,	50	54	203
Chemicals (*o.n.*)	,,	4,385	5,335	7,264
China Clay and China Stone	,,	9,117	9,191	8,220
Glucose	,,	83	501	370
Drysalters' Stores	,,	5,277	6,048	5,997
Cotton and Linseed Cake	,,	818	4,692	2,472
Cotton and Linseed Meal	,,	136	986	630
Litharge and Colors	,,	1,039	1,575	1,476
Ochre	,,	837	997	338
Bones	,,	98	106	22
Guano and Manure	,,	497	1,648	1,012
Nitrate of Soda	,,	39	5,844	3,646
Phosphates	,,	..	13,700	19,753
Antimony Ore	,,	396	2,954	4,055
Burnt Sulphur Ore	,,	78,929	79,427	74 904
Copper, Copper Precipitate and Copper Ore	,,	2,822	11,875	12,081
Iron Ore	,,	105,116	827,835	786,618
Lead Ore	,,	2,586	7,754	12,335
Manganese & Manganese Ore	,,	1	565	1,172
Sulphur Ore	,,	56	49,878	62,989
Limespar and Spar Stone	,,	..	426	617
Plaster of Paris and Whiting	,,	931	931	1,289
Salt	,,	54,165	59 765	67,703
Slag	,,	9,236	9,336	9,128
Oils, Mineral	,,	2,834	26,315	23,743
Other Oils	,,	4,715	5,172	4,736
Tar and Pitch (Mineral)	,,	610	660	735
Turpentine, Varnish & Putty	,,	1,177	1,192	932
Tallow, Fat and Grease	,,	390	458	675
Bark, Spent	,,	7.835	7,835	8,751
,, Tanners'	,,	115	1,098	1,305
Cutch	,,	..	..	4
Esparto Grass	,,	..	7,733	11,544
Resin	,,	112	3,051	2,487
Shumac	,,	133	133	144
Tar and Pitch	Brls.	1,213	8,499	8,225
Valonia	Tons.	39	39	99
Wood Pulp	,,	516	10,126	7,221

EXPORTS.

Description of Goods		Coastwise.	Total, 1898.	Total, 1897
Blacking	Tons.	..	2	1
Alkali and Soda Ash	,,	1,863	8,127	8,198
Alum and Alum Cake	,,	5.137	6,126	4,771
Ammonia & Sal-Ammoniac	,,	5	4,412	4,297
Arsenic	,,	6	38	55
Barytes, Carb. and Sulp.	,,	2,048	6,863	5,668
Baryta Manufactures	,,	745	1,558	1,212
Bi-Carbonate of Soda	,,	11	11	10
Bleaching Powder	,,	14,031	23,349	25,117
Caustic Soda	,,	6,245	13,800	14,999
Copperas	,,	94	144	124
Epsom Salts	,,	1	7	16
Hyposulphite of Soda	,,	645	1,069	1,159
Magnesia	,,	142	392	335
Manure	,,	5,614	24,137	26,369
Nitrate of Soda	,,	..	1,000	54
Potash	,,	30	32	60
Pearl Harding and Gypsum	,,	310	496	832
Soap	,,	77	80	100
Soda Crystals	,,	13,529	17,642	36,873
Sulphite of Soda	,,	238	11,955	14,513
Sulphur	,,	728	7,555	6,536
Silicate of Soda	,,	160	414	280
Chemicals (*o.n.*)	,,	381	1,557	974
Cement	,,	23,566	27,964	26,590
Fire Clay	,,	2,676	11,300	11,287
Glass	,,	1,731	2,594	2,603
Glue	,,	18	19	18

EXPORTS—*Continued.*

Description of Goods		Coastwise.	Total 1898.	Total, 1897
Antimony & Antimony Ore	Tons	342	1,232	1,809
Litharge	,,	138	605	591
Lead, Red and White	,,	18,498	22,513	21,796
Lampblack and Coal Dust	,,	204	230	262
Lime	,,	593	594	461
Oil, Varnish and Turpentine	,,	10,325	10,849	11,738
Patent Fuel	,,	..	55	700
Plaster of Paris and Whiting	,,	1,404	1,433	1,038
Purple Iron Ore	,,	51,665	51,715	33,091
Salt	,,	43	1,398	84
Slag and Mill Cinders	,,	4,801	10,580	4,682
Sugar and Molasses	,,	38	39	45
Tar, Pitch and Resin	,,	254	691	363
Venetian Red	,,	254	366	231
Vinegar and Acids	,,	30	111	116
Wood Pulp	,,	..	1	71
Zinc Ore	,,	42	7,518	5,196

Imports.—It is interesting to know to and from which countries the chief shipments go and come, and we therefore append the following special analysis:—The increase in barytes is less than it was in 1897, but the German contribution has increased from 10 tons to 178 tons. Nitrate of Soda shows an increase of 2,198 tons against a falling off of 2,000 tons in the previous year, but phosphates have turned the tables by presenting a decrease of 6,053 tons. The U.S.A. come second on the list with 4,600 tons compared with 10,545 tons in 1897, while Algeria now leads with 5,237 tons compared with 2,875 tons in the previous year. Sulphur ore shows a serious falling off amounting to 13,111 tons, the total being 48,878, of which 49,822 came from Spain. Salt again shows a net decrease of 7,938 tons. Of the 59,765 tons imported Germany contributed 5,600 and the remainder was coastwise. Other items showing an increase are mineral oils and resin. Esparto grass has declined.

Exports.—The falling off in the exports of alkali is lighter, the deficit being but 71 tons against 664 in 1897. Sweden and Russia have changed places once more in the lead for the demand, the former having taken 1,969 tons and Russia 1,412; the U.S.A. total is 17 *vice* 51 in 1897. The increase for ammonia and salammoniac is 115 tons as against 500 in the previous year Bleaching powder shows a drop of 1,768 tons and caustic soda 1,199 tons, which is an improvement in each case on the comparison between 1897 and 1896. Belgium and Russia still lead for bleach with 3,440 tons and 1,943 tons respectively, Norway and Sweden being a good third and fourth. For caustic soda Russia leads with 1,182 tons, Germany is second with 1,166, and Spain is a good third with 1,028. Soda crystals and sulphate of soda both show decreases Salt shows an advance of 1,314 tons. Out of 24 purely chemical items, 12 show an increase, being 50 per cent as compared with about 23 per cent in the previous year.

GERMAN CHEMICAL TRADE IN 1898.

GREAT BRITAIN'S SHARE.

Iron and Iron Ore.—A lively interest is felt in the German iron industry as to whether Great Britain will be able to discover new sources for the supply of her diminishing raw material. Spain is nearly exhausted, and Great Britain will eventually have to discover another source for iron ore chemically sufficient to satisfy the demands of the manufacturer. The situation, too, in North America has considerably altered. The discovery of the Gogelic mines in 1885 and of the Mesabi Mine in 1892 has placed at the disposal of the American trade ore of a much better quality than was formerly available. The consequence has been a considerable reduction in the price of iron ore throughout the United States. From 1892 till 1894 the price of ore from Lake Superior declined from 5½ to 2½ dols. per ton, thus providing the United States with much cheaper ore than it was possible to obtain in the European markets. At the same time, the price of hematite iron was lower than it had ever been known. All this explains why American iron can compete successfully with European iron ; should it be possible for America to continue to obtain this store of superior ore, her place as the chief iron-producing country of the world is assured. If, however, Great Britain can discover a means of supplying the place of the exhausted Spanish ore, her supremacy in the iron market will be maintained. In this period of uncertainty, the eyes of all interested are directed with great expectancy to Sweden. The difference in the distance of ores from the furnaces is not so great as at first appears. In the Lake Superior district, the ore is 1,800 kiloms. from the furnaces, and the Swedish ore is only 2,400 kiloms. The cost of obtaining it is about equal. In both cases the ore is lying open, and can be manipulated by machinery. The question of relative cost then depends upon what profit can be made by its sale, upon the cost of freight, and upon the amount to be paid to the respective Governments. The United States obtain their ore from Lake Superior, a distance of 1,500 kiloms.,

at a freight cost of 2s. per ton. Should then this rate be possible for England with regard to Swedish ore, her iron supplies will be rendered much more easily available.

Chemicals.—The following is a summary of the chief chemical export and import trade between Germany and Great Britain in 1898 :—

IMPORTS FROM GREAT BRITAIN.

Name of Wares.	Quantity. 1898. Tons.	1897. Tons.
Caustic soda	509	783
Ammonium carbonate	1,371	1,382
,, sulphate	19,987	23,637
Anthracene	6,815	5,176
Borax, boracic acid	1,821	1,805
Chromate of potash	469	445
Raw glycerine	3,891	4,519
Indigo	121	167
Carbolic acid	3,650	3,272
Sodium sulphate	650	1,040
Coal-tar oil (light)	2,841	6,832
Superphosphate	23,260	21,959
Natural colouring earths	2,710	2,319
Phosphate of lime (natural)	1,637	4,211
Kaolin, feldspar, fire-clay	74,047	77,944
Strontian	8,817	7,609
Lead ore	9	1,993
Iron ore	15,388	10,395
Thomas's slag (ground)	13,505	20,182
Pitch (excepting asphalte)	44,528	35,766
Tar	10,757	7,852

EXPORTS TO GREAT BRITAIN.

Ultramarine	1,748	1,594
Alizarine	2,051	1,971
Aniline and other coal-tar stuffs	4,007	3,517
White lead	10,393	9,532
Chlorate of potash	10,986	9,473
Glycerine (purified)	393	647
Red lead	2,299	1,858
Nitrate of potash	3,761	2,749
Tartaric acid	803	819
Protoxide of zinc	6,453	5,624
Kali salts (abraumsalze)	20,494	44,166
Rape-seed oil (in barrels)	2,607	2,118
Oilcakes	59,615	53,700

Complaints have been made in the chemical and pharmaceutical trade that the enormous competition has reduced the profits of this branch (which requires so great an expenditure of labour and capital) to an unprofitable minimum Exceptions to this rule are the new patent medicines, which, being protected by patent, can command a higher price than the cost of the chemical substances of which they are composed. That branch of the industry which employs itself in spirit preparations has not been able, in spite of various legislative privileges, to mitigate the injury to their trade caused by the rigorous "Brantweinsteuer" Law. In the matter of exports, the lost ground will never be regained.

Great Britain obtains the greatest benefit from this law, for since 1888 the whole of the tax on spirit exports has been reimbursed. In the United Kingdom, the business in tinctures and such preparations has rapidly developed, principally at the cost of the German industry, which has been paralysed by the tax regulations.

The trade in *borax* and boracic acid has experienced many changes during the past year. The Union of German Borax Manufacturers lowered their price on May 1st from 50 to 47 marks per 100 kilos. On January 1st this year the price was raised to 50 marks. It is possible that a further rise in price may take place, owing to the formation of a ring. The new syndicate will include British, French, and South American firms. South America is expected to supply the raw material, but the refining is to be done exclusively in Europe. The various groups forming the "ring" are each bound over not to disturb the market for the other, so that there shall be nothing to hinder the formation of the monopoly. Such a large international union will doubtless dictate the price, and keep the market in their own hands, at any rate until new fields of production arise, which may not be inclined to join the "ring."

The Anglo-German firms in the *oxalic acid* trade were ceaselessly employed during the whole of the year to supply the demand. Prices, however, could not be kept up as so many new firms started which did not belong to the syndicate. The demand still continues, but the prospects of the trade are not brilliant; over-production will undoubtedly be the result of the establishment of the new factories, and the price will sink still lower. The export of oxalic acid from Germany was more than in the previous year, 52,726 cwts. being exported, compared with 47,591 cwts. in the previous year, of this the United Kingdom took 8,333 cwts.

The trade in *sulphate of ammonia* was more flourishing than in the previous year. With the exception of March, April, and May (when the trade suffered from the Spanish-American war), the prices steadily rose until at the end of the year they attained a height which they had not reached since 1895. When one considers the near relationship of Chile saltpetre to this substance it is more remarkable that the price constantly rose while that of sodium nitrate stood still and even declined.

Bleaching Powder.—The past year was so unfavourable for the manufacturers of chloride of lime, that it became necessary for them to meet and consider whether it were not possible to fix the price at any rate so high that it left a margin of profit. This caused a rise of 20 per cent. during the past year. The paper and bleaching mills use the best qualities of chloride of lime, while the inferior kinds are used for disinfection British chloride of lime is less wanted in Germany than formerly, as the electrolytic system of production provides Germany with as much as she requires, particularly as a duty of 3 marks per 100 kilos. is levied, and must be deducted from the already low prices. In the past year the import amounted to 3,452 cwts., while the export from Germany amounted to 376,625 cwts. The prices of the home markets by great demand regulate themselves "à la hausse," and by a great supply "à la baisse," but for the export market the British prices rule. By far the greater part of the chloride of lime used in Germany is produced by the electrolytic method, and the prejudice which formerly existed against this mode of production is nearly removed. In fact, many firms which produced chlorates and alkalies by the old method were obliged to adopt electrolysis in order to obtain anything like remunerative prices. Electrolytic works are in course of construction in the United Kingdom, Belgium, Russia, Austria, and America, so that there is every danger in the near future of overproduction, unless some other additional use for chloride of lime should be discovered. As, however, there is no present prospect of such a discovery, difficulties in this trade may be anticipated.

The *glycerine* market was much quieter than in the previous year, when a North American ring sent the price up to 120 fr. for 100 kilos. The past year, however, saw a decrease in the price of raw glycerine to 70 fr. per 100 kilos. This price was maintained with little variation till the end of the year. The consumption in the United States on account of the war was less than usual. In the last few months much has been required to supply the dynamite factories, therefore prices have gone up and promise to rise still more. The price for purified glycerine was subject to the same variations as that of raw glycerine. The Association of German Glycerine Refiners found it difficult to maintain the price they had determined upon, as much foreign glycerine found its way into the German market, and was sold at a much lower rate. It is true, the quality was not so good, but it was useful for a variety of purposes, and will eventually become a factor in competition which cannot be entirely ignored.

In the past year 185,614 cwts. of raw glycerine were imported compared with 144,689 cwts. in 1897. Of this, 87,149 cwts. came from Great Britain. The import of purified glycerine amounted to 28,977 cwts., compared with 35,612 cwts. in 1897. Of this, Great Britain sent 8,232 cwts.

In spite of foreign competition, however, the German glycerine production shows a decided increase, principally in glycerine for making dynamite, of which Cape Colony and the Transvaal took by far the largest quantity. The export of German glycerine in 1898 amounted to 127,300 cwts. compared with 67,935 cwts. in the previous year. Of this amount 8,810 cwts. went to Great Britain. South Africa took much more than half of the entire German export.

The prices of *potash* show a decrease. The causes were: first, large quantities of "schlempe kohle," a refuse product of sugar manufacture, were thrown on the market, and secondly the increased production by electrolytic methods of caustic lye, a substance which competes largely with potash. The export of potash was not less than in previous year, amounting to 301,412 cwts. compared with 293,429 cwts. in the previous year. The principal markets were Great Britain, the Netherlands, the United States, and Belgium.

The business in *chlorate of potash and soda* was decidedly unsatisfactory at the beginning of the year, the various factories competing with each other in lowering the price. The last half of the year, however, saw an improvement. The manufacturers came to an understanding by which the prices of chlorate productions, manufactured by the electrolytic method, were fixed at a certain rate. The result was that the price of chlorate of potash rose from 53 to 62 marks per 100 kilos., which price it has retained to the present time.

The import in 1898 amounted to 29,725 cwts compared with 27,646 cwts. in 1896. Of this 8,259 cwts. came from Great Britain.

The *saltpetre* industry has exhibited many changes during the past year. Although the price of raw kali saltpetre and Chile saltpetre has been kept up, the prices of the manufactured article have gone down,

and that too without causing any specially increased sale. The cause of this unsatisfactory condition may be the large number of new factories and the diminished use of saltpetre in the manufacture of explosives. The export from Germany has decreased; Great Britain, however, took 84,244 cwts.

The import of *alkali* from Great Britain to Germany has decreased during the past year from 8,272 tons in 1897 to 6,623 tons in 1898. The reason is clearly the increased production of soda from year to year in Germany itself. Germany received from the United Kingdom in the past year 11,742 cwts. calcined soda compared with 20,527 cwts in 1897, and it must be remembered that a high duty is imposed on the import, so that the prices of British soda must have been exceedingly low. The duty of 2s. 6d. per 100 kilos. is, considering the low value of the material, so disproportionately high that it is to be hoped that the next commercial tariff will deal with this question.

Of the *persulphates* the most important is the potassium salt, which is used as a developer in photography. The use of sodium salts has greatly increased in Germany for medicinal purposes, and also as an antiseptic.

A great change seems imminent in the manufacture of *sulphuric acid*. The Baden Anilin Soda Factory has patented a most important improvement in the production of this substance. By this new process there is an immense saving in fuel, and the expensive platinum rectifying apparatus is no longer necessary. More important still is the fact that no saltpetre is required by the new process. Saltpetre is of such enormous value for agricultural and technical purposes that any economy in its use must be welcomed, the more so as the saltpetre fields will, in the course of time, be exhausted.

Phosphorus.—There is not much favourable to report in the market for phosphorus. A movement is on foot to form all the German factories into a syndicate The last year, however, shows no decrease in the imports from foreign lands. 5,928 cwts. were imported compared with 5,831 cwts. in 1897. Of this Great Britain sent by far the largest part, 5,121 cwts.

Benzine. After much discussion the Benzine Convention is at last on accomplished fact. This Convention, which includes 30 establishments in Germany, Belgium, Luxemburg, and Switzerland, will last for three years. It commands a production of 35,000,000 kilos., it regulates the amount of production, and rules the prices. This Convention was the outcome of the exhorbitant prices demanded by the Standard Oil Company, and the benzine manufacturers hope to keep their prices proportionately high.

The manufacture of *sugar of lead* has not been profitable during the past year. The export is from year to year decreasing. In 1896 it amounted to 1,533 tons, in 1897 to 1,176 tons, and in 1898 to 1,119 tons. The main reason for this retrogression is the establishment of new factories in other countries with which the German manufacturer on account of the high import duty finds it impossible to compete. These unfavourable conditions have been intensified by the difficulties in the spirit trade, spirit being the principal raw material necessary to the production of sugar of lead. The enormous rise in the price of spirit in the spring of 1898 caused a rise in the price of sugar of lead of six marks per 100 kilos. A fall in the autumn in the price of spirits brought the price of sugar of lead down by two marks. The prospects for the present year are, however, very gloomy, for the maintenance of high prices by the spirit "ring" render a profitable production of this substance impossible.

Artificial Indigo.—Among new manufactures the manufacture of artificial indigo is decidedly the most important. The most sanguine anticipations of the manufacturers have been realised. The favourable practical results of the new manufacture have convinced the consumers of the great advantages which it possessed, and all doubts as to its equality with the natural product have disappeared. In fact, artificial indigo is a perfect substitute for the natural product. This has, of course, led to the establishment of numerous factories for its production, this fact, together with the low price of the natural indigo, will eventually cause some difficulties in the trade.

Soap and Oils.—The German soap manufacturers have petitioned for a decrease of the import duty on maize oil, but it is the opinion of the Chamber of Commerce at Hamburg that those who support this measure cannot be aware of the capabilities of the German linseed oil industry, which amounts annually to 165,000 tons. Of the quantity produced in Germany, at least 50 per cent. is used in the soap manufacture, and should a lower duty be levied on the import of maize oil, it would be a severe blow to the German linseed oil industry. The Bundesrath therefore decline to accede to the proposals of soap manufacturers. Later, the combined linseed and palm oil manufacturers presented another petition, which they hope will relieve their trade. They propose to raise the tax (4 marks) which already exists on cotton oil, a material used freely in many industries. They state that the import of this oil is rapidly increasing, and that the large supply is an injury to the German oil industry and to agriculture. They have the more hope that this request will be granted, as Germany imposes a lower duty than most other countries on the import of cotton oil.

Our Book Shelf.

COLOUR. By George H. Hurst. 154 pp. and Index; 10 Coloured Plates, and 72 Illustrations. London: Scott, Greenwood, and Co., 1899. 7/6 *net.*

The practical man who is valuable, is almost always the man who has an intelligent grasp of the theory of his subject, but it is not always possible for practical men to supplement their knowledge in this direction without spending a lot of time in study. Messrs. Scott and Greenwood are therefore publishing a series of technical books which are prepared specially with a view to satisfying the needs of practical people, and their work on Colour is a very good specimen of the series. It will be found to be of direct service to the majority of dyers, calico-printers, and colour-mixers, to whom we confidently recommend it. The chapters on the cause and production of colour; colour in design and decoration; and the measurement of colour are explicit and helpful. The various colour theories are reviewed briefly but comprehensively, whereby the practical man is told as much as is essential for him to know. The coloured plates are good considering the difficulties of colour-printing. They constitute one of the best and most instructive features of the book, and as such we venture to suggest that references to the text where they are described should be added. At present the explanations of the plates *per se* are not easy to find, and the references are not always accurate. This, however, only affects the book as a work of reference, and in no way impairs its value to the reader who goes—as we advise him—from cover to cover.

TABLES FOR QUANTITATIVE METALLURGICAL ANALYSIS. By J. J. Morgan. London: Chas. Griffin and Co., Ld., 1899. 4/-.

These tables supply a new and commendable class of technical literature which will prove invaluable in industrial laboratories.

The tables are arranged in the familiar columnar form, hitherto, generally associated with qualitative work, but which lends itself admirably to the succinct statement of technical quantitative methods. Of the sixteen tables, thirteen are devoted to the assay of iron ores; steel; limestone; boiler incrustants; blast-furnace slag; coal; water; gases; copper; zinc; lead; alloys and white lead. Special notes are appended to the first two tables, and have reference to the estimation of manganese and phosphorus in iron ores, and the silicon and carbon in iron and steel. The other tables relate to atomic weights, factors, and the preparation of equivalent reagents. The latter are very handy for technical work when a number of similar tests have to be made, as part of the preliminary treatment and precipitation can be defined precisely, and entrusted to comparatively unskilled juniors. Technical chemists will find these tables very useful and great time savers.

A SHORT HISTORY OF SCIENTIFIC CHEMISTRY. By W. A. Tilden. 276 pp. including Index. London: Longmans, Green and Co., 1899. 5/- *net.*

This book is an amplification of one of the "Working Mens'" lectures delivered in connection with the Royal School of Mines. It is confined to the Victorian Era, but as it was in 1837 that the teachings of Liebig began to quicken the chemical world, the book practically covers all the history which has so far been unwritten. It gives within moderate compass all that is helpful to the student, and instructive to the general reader who is interested in science. It deals mainly with the revision and development of the atomic theory, the growth of valency, passing on to the progress of synthetical chemistry and the rise of stereo-chemistry. Argon, Helium, Neon and Krypton are dealt with in connection with the distribution and recognition of the elements. The later chapters have reference to chemical and electrolical affinity and the liquefaction of gases.

As a whole it fully justifies its claim to being a short history of scientific chemistry in our own times, and as such, fills a gap in the historical literature peculiar to chemistry.

THE SPIRIT OF ORGANIC CHEMISTRY. By A. Lachman. 229 pp including Index. London: Macmillan and Co. Ld., 1899. 6/6 *net.*

The object of this work is excellent, and though there may be various opinions as to how far its critical tone is justified, we think the execution of the scheme as a whole, goes a long way to condone points on which personal opinions differ. It is of the first importance that all students who have a liking for organic chemistry in particular, should digest this book. It will also prove a useful factor in making a selection from the many colleges which are open to students. As the

author very truly states, it often happens that the selection of a college or university is made without paying any consideration to the class of investigations peculiar to respective institutions. The introduction by Prof. Freer is an excellent tonic for students, and does much to bring home the objects of the work to the reader. In the nine chapters that follow, the author endeavours to set forth the spirit of organic chemistry by recording theories and histories of the principal workers who have laboured to explain the constitution of rosaniline, benzene, aceto-acetic ether, the uric acid group, the sugars and the diazo compounds. References to authorities abound, and are supplemented by a considerable amount of individual criticism.

Outlines of Physical Chemistry. By A. Reychler. Translated by J. McCrae. 276 pp. including Index. 52 Illustrations. London: Whittaker and Co., 1899. 4/6.

This work is interesting historically, from the fact of the late Dr. Hurter being so attracted by the French original that he acquired the right of translation, and had translated the first two parts at the time of his early death. As the author has largely re-written the earlier portions, however, Mr. McCrae's task has practically been a fresh one. The book is divided into four parts. Part I deals with the fundamental theories, the gaseous state, the specific heat of elements in the solid state, and the constitution of the molecule. Part II enters more fully into the three forms of matter; gaseous, liquid, and solid. In Part III we come to the study of thermo-chemistry, electro-chemistry, and the nature of salt solutions, while in the last part, we have presented the study of chemical mechanics and dynamics, chemical equilibrium, and hydrolytic dissociation.

A Course of Practical Chemistry. By M. M. P. Muir. Part II. 234 pp. with Index. Illustrated. London: Longmans, Green and Co., 1899. 4/6.

This, the second or intermediate part of Prof. Muir's course covers the elements of volumetric and gravimetric analysis, and the advanced portion of qualitative work. The scheme is an excellent one for training students in methods of chemical investigation, rather than cultivating skilled testing machines, and the scheme as developed in this the intermediate stage confirms the wisdom of the policy laid down in Part I. The selection of the type and the displaying of the text, are special features of the book, the "presentation" of the tests and exercises being in itself a lesson in method which is calculated to cultivate precision in chemical investigation.

A Manual of Pharmaceutical Testing. By B. S. Proctor. 2nd Edition. 192 pp. including Index. Illustrated. London: "The Chemist and Druggist." 1899. 2/6 *net*.

Every pharmaceutical chemist should be capable of testing the drugs and chemicals he has to dispense, and this handbook gives him not only some useful hints on procedure in regard to manipulation, but also describes a number of tests, which are simpler or more expeditious than some of the B. P. methods. In many ways the book has been brought up to the requirements of the day and the revised B P. The materials for which tests are given, are arranged in alphabetical order.

The Linoleum Combine.—In connection with the proposed floorcloth and linoleum amalgamation, a meeting of shareholders of John Barry, Ostlere & Co. was held in their offices last week—Mr. Wm. Sutton, Newcastle, the vice-chairman of the company, presiding. The resolutions passed at the meeting on the 18th August were unanimously confirmed, and the amalgamation was agreed to.

Fireproofing Trades at the Paris Exhibition.—There will be an important collective exhibit at the forthcoming Paris Exhibition, representing the fire resisting materials, system of construction, and appliances of Great Britain. The arrangement of this collective exhibit (the first of its kind) is in the hands of the British Fire Prevention Committee, to whom the Royal Commission has allotted the necessary space gratuitously, recognising the national importance of the idea and the disinterestedness of the effort being made by the committee to show what the country can produce in this direction. Mr. Frederick R. Farrow, F.R.I.B.A., chairman of the commercial section of the committee has kindly undertaken the direction of this collective exhibit, and it has been decided that all applications from all British and Colonial firms to be represented in this national exhibit must reach the offices of the committee by October the 7th. The committee itself will exhibit a model of its testing station, specimens of reports, and the like. This idea is an excellent one, and should be productive of good results. The free allotment of the space is wise, encouraging and gracious.

Reports of Companies.

BERCA PETROLEUM CO. LTD.

The statutory general meeting was held on Friday, last week, at Cannon-street Hotel, E.C. Mr. George Edwards presided, and, after stating that the company was registered on May 6 last, remarked that it was stipulated in the prospectus that unless £40,000. of working capital was provided in addition to the sum required to satisfy the vendors, they would not go to allotment. The whole of that £40,000. was subscribed, and the money would, of course, be spent on the developement of the estate. Although the property was bought on the faith of the report of Mr. Sutherland, an oil expert, the directors thought it desirable that some of their number should visit it, and accordingly he, accompanied by Sir Henry Wardlaw and Mr. Sutherland, proceded to Roumania on July 3 last. They spent about a fortnight in inspecting this property, and found, as he expected they would do, that all the work so far carried out had been done very badly. There were indications of the existence of large quantities of oil—they had proved that there was oil in 40 different places—but the previous owners had not gone the right way to work to obtain it. There had practically been no management at all. The sinking of wells had been started with the wrong diameter, so that when a depth of 200 métres was reached, the diameter, instead of being 12 inches, was only four inches. Consequently, after a few days working the whole thing became blocked up, and the money expended was as good as wasted. The board had arranged for the management of the property by Englishmen, and all the foreigners had been got rid of. The old-established firm of Messrs. Watson and Youell, of Bukharest, had been appointed as the commercial agents of the company, and they would be, in effect, the general managers out there. Under Messrs. Watson and Youell they had an engineer, Mr. Swan, who would have the general supervision of the developement operations. Mr. Swan, was also the engineer, to the European Petroleum Company, and he would divide his time and attention between the two companies. In a general way, Mr. Swan would not be absent from their property for more than about ten days at a time, and the board had obtained the services of another competent man, who would reside on the spot, and see that his superior's orders were carried out. Messrs. Watson and Youell, who would act entirely in accordance with instructions given by the board, had been authorised to expend, during the ensuing twelve months, about £25,000. in order to put the property into a good condition, and sink the necessary wells to prove absolutely if petroleum existed in large quantities. The work of sinking two new wells had been begun, and, judging by the experience gained in connection with other oilfields, the board believed that they were proceeding on proper lines for testing the value of the estate. The new wells, which would cost about £4,500. each, would have a diameter at the top of 24 inches, so that even if it were requisite to go down 600 mètres they would have a diameter of 12 inches at the bottom. Up to the present time, whatever oil was obtained had to be taken to a little refinery at Beuzen by bullock waggons. If the company succeeded in obtaining large quantities of oil, it would be necessary to provide a pipe line, the cost of which would be about £10,000. Within the past fortnight, Messrs, Watson and Youell had forwarded to the board reports of an encouraging nature, and it was believed that a certain amount of oil would be obtainable from two of the existing wells. The company had a lot of work before it in connection with the development of the property. Machinery would have to be sent out, and it would be from eight to ten months before the new wells were completed. Consequently, the shareholders must not expect to receive a large dividend as the result of the company's first year's working. Mr. Ellis asked what the estimated output of the new wells would be. The chairman replied that it was impossible to say, but a good well should yield from ten to fifteen tons a day. Their property was 4¼ miles long and 1 mile wide, and they would be able to sink 50 or even 100 wells if only oil was found in sufficiently large quantities. If they should be fortunate enough to get a spouting well they would, of course, have an immense quantity of oil, and for an outlay of £680. it had been possible to provide reservoirs and dams to meet such a contingency. No resolution, other than a vote of thanks to the chairman, was submitted to the meeting.

Fires at Chemical Works.—Between three and four o'clock on Thursday morning, the chemical works of Mr. J. Metcalf, at Altham, near Accrington, were discovered to be on fire. The store-room, which contained much inflammable material, was completely destroyed, and it was with the greatest difficulty that the rest of the works were saved. The damage will be about £1,000., and is not covered by insurance.—Another fire broke out on Thursday at the Globe Chemical Works, St. Helens (owned by the United Alkali Company) in the engine house. The vitriol chambers and adjoining plant were saved. The engine house was gutted, and will entail a stoppage of the works for some days. The loss is covered by insurance.

Trade Notes.

Peroxide of Sodium in Dyeing.—Peroxide of sodium has since its introduction found many applications in the bleaching of wool and silk, for which purpose it has shown itself superior to other bleaching agents. Now, however, it has been pressed into the service of the cotton dyer. Messrs Leopold Cassella and Co., of Frankfurt-am-Main, have lately introduced a new dyestuff, Immedial blue C-, for dyeing cotton, and for the purpose of fully developing and fixing the colour on the fibre they make use of the oxidising properties of sodium peroxide, by passing the dyed cotton through a bath prepared by partially but not completely neutralising the sodium peroxide by the addition of sulphuric acid. Having thus been introduced for developing colours on cotton, it is quite possible its use may be extended to other colours possessing similar properties to Immedial blue C.

The Iron Ore in Kent.—The discovery of iron ore at the Kent Colliery works at Dover, proves to be more valuable than was supposed. After a delay for the erection of certain machinery in No. 2 pit, sinking operations were resumed a few days ago, and an additional thickness of 5 ft. of ore has been passed through, making a total thickness of 17 ft. The percentage of metallic iron contained in the ore increases with the depth at which it is excavated, the lower portion of the bed being much richer than the upper.

Traders and the Paris Exhibition.—The prolonged crisis in France, arising out of the Dreyfus case and the revolutionary spirit that is being manifested, is likely to have a prejudicial effect upon the Paris Exhibition of 1900. The *St. James's Gazette* says enquiry among the principal British firms which have been allotted space at the forthcoming Exhibition demonstrates that there is not only a very marked absence of enthusiasm concerning the Exhibition which is to usher in the new century, but there is a decided inclination to postpone preparations till the sky is clearer, even where it is not directly regarded as unlikely that in the circumstances it will be worth exhibiting at all. A firm employing 4,000 hands in London, Manchester, Liverpool, and Birmingham is suspending all arrangements for the present. A large firm of Birmingham metal manufacturers finds itself in the position that if they have to wait much longer they will not be able to do themselves justice, and will have to withdraw. One of the most prominent firms of cotton machinery manufacturers in the world is watching the course of events very closely, and is only not yet considering the advisability of relinquishing the space allotted to them because they believe that the French Government is bound to save the Exhibition at any cost.

Householders and Noxious Fumes.—On Tuesday evening, in St. Luke's Schoolroom, Cheetham, Manchester, the Rev. J. Chippendall presided over a largely attended meeting called by the agents of Lord Derby and Mr. Lloyd to consider what steps should be taken to secure the abatement of the nuisance caused in the district by noxious fumes which are said to emanate from certain works at Blackley.—The chairman read a letter which he addressed to the corporation about three months ago, calling attention to the injury being inflicted on the neighbourhood by the odours, and asking for something to be done to redress the grievance. He testified from a lifelong residence in the locality to the extraordinary decline in the luxuriance of the foliage and the salubrity of the atmosphere, and suggested that the corporation should be requisitioned to take proceedings against the offenders. Mr. Statter, on behalf of Lord Derby, said that no time, money, nor anything else would be spared by his lordship in an endeavour to remove the causes of complaints. Mr. Humphreys said proceedings were already being taken by the corporation. After many gentlemen had described their sufferings, a committee was unanimously appointed to take such action as might appear advisable to strengthen the case against the firm concerned.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are still quoted 8d. to 8½d. for 90's, and 10½d. to 11d. for 50/90's, sales of 90's having been made at the higher figure. Otherwise, tar products are dull, there being hardly any business doing. There is reason to expect that values will take more definite shape shortly, but at present all values remain *in statu quo ante*.

Sulphate of ammonia is dull, and the demand for prompt is feeble. The inquiry for forward is not quite so slack, but prices seem to check anything in the way of extensive business. Becton offers for Oct./March at £11. 15s., a reduction of 2s. 6d. on last week. Nearest prompt values are:—London (outside makes), £12. 1s. 3d. to £12. 2s. 6d.; Hull, £12.; and Leith, £12. 2s. 6d. Nitrate of soda firmer.

MISCELLANEOUS CHEMICAL MARKET.

Business all round has been rather quiet during the past week, and there are really no changes to report. Bleaching powder continues in steady request at former rates. Caustic soda without quotable change, but in good demand, and prices are firm. Saltcake has more inquiry, both for prompt and forward delivery; about 25s. may be taken as to-day's value. Soda crystals quiet. Chlorates of potash and soda in the same position. Nitrate of soda still stands at £7. 10s. Sulphate of copper finds ready sale at £23. 15s. Caustic and carbonate of potash fairly active, and prices have an upward tendency. Prussiate of potash a shade easier, but there is no quotable change. Cream of tartar continues steady, and quotations range from 75s. to 80s. per cwt. Acetates of lime finds but little inquiry. Acetate of soda strong, and price has advanced 10s. per ton. White powdered arsenic is quoted from £18. 10s. to £19., according to quality. Tin crystals firm at 10d. Bichromates more slowly at old prices. Sulphocyanides appear at last to be improving; the demand is better, and prices all round are decidedly stronger. Carbolic acids are firmly held, but prices are without any alteration. For textile chemicals the demand is only moderate.

THE METAL MARKETS

LONDON, Wednesday.—Pig iron firm: Scotch Warrants closed at 69s. 6½d.; Middlesbrough, 67s. 3d., cash; and hematite, 73s. 7d. Copper steady: Chili bars, G.O.B.'s and G.M.B. s, closed at £77. to £77. 5s., cash; and £77. 5s to £77. 10s. three months. Tin, firm: Straits closed at £143. 7s 6d. to £143. 17s. 6d. cash, and £142. 10s. to £143. three months; Australian, £144. 5s.; English ingots, £146. 10s. Lead, firm: Spanish, £15. 5s.; English, £15. 7s. 6d. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 12s 6d.; second hands, £8. 12s. *Copper Shares* steady: Cape, 3 15/16 to 4 1/16; Copiapo, 3 11/16 to 3 13/16; Libiola, 1¾ to 2; Mason & Barry, 3⅝ to 3⅞; Rio Tinto, 46 7/16 to 46 9/16; Tharsis, 7⅞ to 8⅛.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is firm and scarce. There is a fairly strong demand, and sales are reported at full rates, including soft oils at £24. Olive is sparingly offered, and prices have an upward tendency. Linseed is steady at 23s. cwt. for Liverpool makes in export casks. Cottonseed is firmly held at 18s. to 18s. 6d. cwt. for Liverpool refined. Castor oil is firm on spot, with good seconds Calcutta at 3d., and first pressure French, 2¾d. to 2⅞d. per lb., but business is slow. Tallow is firm, and again inclined to advance in price. Resin is in moderate request at full prices. Spirits of turpentine are steady on spot at 35s. cwt., with a fair amount of business doing at that. Petroleum is well held, but only moving slowly at 6⅝d. to 8d. per gallon for American, and 5¾d. to 6¼d. for Russian refined.

CAKES.—The tone of the market remains steady, but the demand has ruled quiet for American Western linseed, the high prices now ruling having checked business somewhat. Holders are still asking £7. to £7. 5s., while Bombay is in moderate request at recent full prices, viz., £7. 5s. to £7. 10s., and £7. 7s. 6d. per ton is now quoted for the small quantity of River Plate here offering from second hands, while Russian continue purely nominal in value owing to the continued absence of stock. A good consumptive inquiry has been experienced for Liverpool makes, and a partial advance of 5s. is asked, the range of values being now from £7. 10s. to £8. 10s. per ton, according to brand. Good to choice brands of American decorticated cottonseed are in fair request for consumption at very steady rates, with sellers still asking £5. 15s. to £6. 2s. 6d., according to quality, and Liverpool makes have a moderate sale at former currencies, viz., £6. 5s. to £6. 10s. per ton, according to brand. Undecorticated Liverpool makes are the turn in sellers' favour, with a continued firm tone ruling in the market, and a fair inquiry experienced, and the value is now given at £5. 3s. 9d. to £5. 7s. 6d. per ton, according to brand. A fair amount of trading has been effected in Egyptian on the spot, and the market closes firm, with no sellers under £4. 15s., but with buyers at £4. 13s. 9d. per ton.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—Business generally at this port is well maintained, and values continue to hold up, and there is very little prospect of any material giving way; the tendancy on the contrary is upward. The stocks of seed in the port, month ending August, were:—Linseed, 4,250 qrs. against 8,620 qrs. month ending July; rapeseed, 2,750 qrs. against 4,007 qrs.; cottonseed, 3,145 tons against 5,186 tons. The imports for the month have been:—Linseed, 4,144 qrs. against 48,746 qrs. in July; rapeseed, 6,894 qrs. against 3,851 qrs.; cottonseed, 4,816 tons against 5,607 tons. Linseed oil is steady, yet quiet, being quoted 21s. spot, naked; September, 20s. 6d.; last three months, 19s. 9d.;

first four months, 19s. 3d. per cwt. ; boiled and refined, £1. to £1. 10s. per ton extra. The exports have been for the week :—Antwerp, 5 tons, Bordeaux, 3 tons, Beyin, 1 ton, Christiania, 4 tons, Christiansund, 2 tons, Constantinople, 1 ton, Drontheim, 2 tons, Stettin, 20 tons, Stavanger, 3 tons, total 41 tons against 35 tons corresponding week a year ago. Refined cotton oil, after being strong, closes weaker ; spot, 16s. 1½d., naked ; September/October, 15s. 10½d. : and November April, 14s. 7½d. to 14s. 9d., paid and buyers ; casks, £1., and ordinary barrels, £1. 10s. per ton extra. Exports are to Alexandria, 4 tons, Antwerp 3 tons, Christiania 1 ton, Copenhagen 4 tons, Dunkirk 5 tons, Gothenburg 5 tons, Hamburg, 5 tons, Rotterdam, 10 tons, Stravanger, 2 tons, Stockholm, 3 tons, Christiansund, 2 tons, together 46 tons against 127 tons same week last year. Castor oil, extracted here, unchanged and slow sale. Candia olive oil, £33 per tun ; green olive oil, £33. Spirits of turpentine, 34s. 6d. to 35s. Resins in fair request, being quoted from 4s. 4½d. for B/C grades ; D, 4s. 5d. ; E, 4s. 6d. ; F, 4s. 7d. ; to W/G, 8s. 6d. ; and W/W, 9s. 2d. Olive oil soap unchanged. Cod oil unchanged. Tallow, 25s. 6d. per cwt.

CAKES.—Linseed very firm ; 95% pure, £7. 15s. Oilcakes (linseed), £6. 15s. ; Russians, £7. 7s. 6d. to £7. 12s. 6d. Cotton cakes firm ; best makes, £5. 10s. ; seconds, £5. to £5. 5s. Rape : Black Sea, £4. 7s. 6d. to £4. 12s. 6d. per ton.

PAINTS.—Business good and prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The market in the ordinary chemicals continues in an active condition, so far as not hindered in that direction by the production falling behind the demand. Owing to the great sultriness of the weather, there has been a large employment of those chemicals which are in repute as disinfectants, and stocks having run very low in one or two of the lines, transfer orders have held a considerable advance in value, as compared with the original contract figures. During the past week, temperatures have ruled lower, somewhat, so that this temporary feature is most likely passing away. Nevertheless, the market generally is on a fairly healthy basis. Mineral oils and paraffins remain firm. The Kirkcaldy linoleum combine, which advanced a further stage on the 2nd inst., is attracting considerable attention on the part of the trades. Sulphate of ammonia, spot, f.o.b. Leith, still quiet. To-day's figure, £12. 5s. to £12. 6s. 3d., and very little doing.

Chief prices current are :—Soda crystals, £2. 7s. 6d. to £2. 10s. basis nett, Tyne ; soda ash, £4. 2s. 6d. to £4. 15s. nett, Tyne ; white alkali, £5. to £5. 10s. nett, Tyne ; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow ; caustic soda, white, 74° £8. 15s., 70/72° £8. 60/62° £7., and cream 60/62° £7, all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £5. 15s. nett, Tyne ; saltcake, 25s. ; borax, English refined, £16., and boracic acid, £25. nett, Glasgow ; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s., nett, Liverpool ; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow) ; bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow) ; chlorate of potash, 3½d., less 5% Liverpool ; nitrate of soda, 7s. 9d. ; sulphate of ammonia, £12. 5s. to £12. 6s. 3d. prompt, f.o.b. Leith ; salammoniac, first and second white, £35. and £33. nett, any port ; sulphate of copper, £23 15s., less 5% Liverpool ; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft 2¼d. per lb. ; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb. ; paraffin spirit (naphtha), 10d. to 11d. per gal. ; paraffin oil (burning), No. 1, 6¾d. ; and crystal, 7d. nett, at Glasgow and other big centres, for Scotch buyers (English sales a shade lower) ; ditto (lubricating) 865° £5. 5s., 885° £5. 10s. to £6., and 890/895° £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are fairly steady, and there is now more inquiry for next year, for which period somewhat higher prices are asked and being paid. Manufacturers being compelled to ask an advance from present low levels, in view of the position of the coal and other market. Bleaching powder, softs, £6. per ton, nett ; do., hards, £6. 5s. per ton, nett ; caustic soda : 76/77% £9., and 70% £8, per ton, nett ; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett ; soda ash, 48%, £4. per ton, nett ; do., 50%, £4. 2s. 6d. per ton, nett ; do., 52%, £4. 5s. per ton, nett ; alkali, 36%, £3. 12s. 6d. per ton, nett ; white alkali, 48%, £5. per ton, nett ; do., 50%, £5. 5s. per ton, nett ; do., 52%, £5. 10s. per ton, nett ; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett ; do , 1 cwt. kegs, £7. per ton, nett ; silicate of soda, 75°Tw., £2. 12s. 6d. per ton, nett ; do., 100°Tw., £3. per ton, nett ; do., 140°Tw., £3. 7s. 6d. per ton, nett ; soda crystals, casks, £2. 12s. 6d. per ton, gross weight ; do., 2 cwt. bags, £2. 12s. 6d. per ton, nett weight ; pearl hardening, £3. per ton, nett ; pure white sulphate of alumina, £3. 10s. od. per ton, nett ; blanc fixe, £6. 10s. per ton nett ; chloride of barium, refined crystals, £6. 15s. od. per ton, nett ; do., crude calcined, £6. 5s. per ton, nett ; carbonate of alumina, £30. per ton, nett ; aluminate of soda, £30. per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—Market continues fairly steady with rather a better demand for gas coals. Coke is in strong request at 24s. and 25s. per ton, f.o.b. To-days quotations are : Best Northumbrian steam, 12s. and 12s. 6d. per ton ; second qualities, 11s. and 11s. 6d. per ton ; small steam, 6s. 9d. and 7s. per ton ; gas coals, 10s. to 10s. 6d. ; household coal, 10s. and 11s. per ton ; coke, 24s. and 25s. per ton.

New Companies.

Ripolin, Ltd.—CAPITAL £7. in £1. shares. This company has been formed to carry on the business of oil and colourmen, manufacturers of ship and other compositions, etc. Registered office, 110, Fenchurch-street, E.C.

M. A. Dewar, Ltd.—CAPITAL £1,750. in £1. shares. This company has been formed to adopt an agreement with A. Dewar and E. A. Fisher of the first part, and Harriet F. Dewar nnd Elizabeth Fisher of the second part, and to carry on the business of chemists, druggists, drysalters, oil and colourmen, druggists' sundriesmen, etc. The number of directors is not to be less than two nor more than five ; the first are A. Dewar, E. A. Fisher, and E. J. Tucker ; qualification £100.

Kern Burner Co., Ltd.—CAPITAL £200,000. in £1. shares. This company has been formed to acquire certain patents and inventions relating to improvements in the manufacture of incandescent gas burners, to adopt an agreement with the Welsbach Incandescent Gas Light Co., Ltd., to manufacture and deal in gas burners, incandescent lights and other apparatus for increasing the power of light and heat producing agents, and to carry on the business of gas and electric light contractors, electrical and general engineers, etc. The subscribers to the memorandum of association are :—W. Ellis, 28, Claremont-road, Surbiton, Lieut. Colonel ; J. T. W. Browne, 3, Bryanston-place, W., gentleman ; W. Harris, 41, Moorgate-street, E.C , accountant ; C. L. Samson, 31, Booth-street, Manchester, solicitor ; G. A. Gutch, 44 Gloucester-place, Portman-square, W., gentleman ; L. de Fonblanque, 22, Upper Phillimore Gardens, W., gentleman ; H. L. Peters, Walton House, Kingston, Surrey, gentleman. The directors are the directors for the time being of the Welsbach Company. Registered office, 78, York-street, Westminster.

Gazette Notices.

PARTNERSHIP DISSOLVED.

P. J. KNIGHT and A. J. PURSALL, candle manufacturers, Aston, Warwickshire, under the firm of Pursall & Co.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending August 26th.

Acetic Acid—

Holland,	4 pks.	A. & M. Zimmermann
,,	150	R. W. Greeff & Co.

Acetone—

Austria,	15 pks.	E. Catlin

Alkali—

Belgium,	1 t.	J. Harrison
France,	2	J. Barber & Co

Alum—

Holland,	450 pks.	J. White
,,	45	T. H. Lee
,,	45	J. Barber & Co.

Antimony Ore—

Straits,	154 t.	H. Grey
China,	4	City Coml. Wf. Co., Ld.
,,	10	R. Warner & Co.
Japan,	23	H. Kiver & Co.
Sydney,	5	A. Gibbs & Son

Arsenic—

Germany,	25 pks.	Brit. Anti-Fouling Co.

Barium Sulphate—

Belgium,	33 pks.	O' Hara & Hoar
,,	36	Leach & Co.

Barytes—

Holland,	109 pks.	W. Harrison & Co.
,,	19	P. Jantzen
Germany,	10	Steinhoff, Sons & Co.
,,	94	J. L. Lyon & Co.
,,	56	W. Harrison & Co.

Bleaching Powder—

Holland,	20 pks.	J. M. Steel & Co.

Bones—

Melbourne,	15 t.	Culverwell, Brooks, & Co.
Sydney,	13	Flack, Chandler & Co.
,,	11	C. A. & H. Nichols

Boracic Acid—

Italy,	18 pks.	A. Laming & Co.

Borate—
Germany, 2,091 bgs. Borax Consol., Ld.

Bromine—
Germany, 80 pks. A. & M. Zimmermann

Caoutchouc—
Zanzibar, 5 c. Clarke & Smith
" 4 t. 13 Hale & Son
" 12 16 L. & I. D. Jt. Co.
Germany, 5 4 "
" 3 5 Prop. Bull Wf.
Thursday Is., 15 "
" 1
P. E. Africa, 3 8 L. & I. D. Jt. Co.
" 2 3 Forbes, Forbes, & Co.
" 6 Clarke & Smith
Straits, 21 4 L. & I. D. Jt. Co.
" 13 1 E. Boustead & Co
U. States, 4
" 13 Prop. Bull Wf.
——— 1 10 W. Balchin, Ld.
France, 1 7 E. Flageollet, Parent, & Co.

Carbon Black—
U. States, 806 pks. A. Frey & Co.

Carbonic Acid Gas—
Belgium, £199 S. Lumley & Co.

Castor Oil—
Preston, 20 cs. Major & Field
France, 30 brls. Beresford & Co.
" 10 20 cs. F. Boehm
" 30 Lucas & Spencer's Wf.
Belgium, 15 Humphery & Co.
E. Indies, 15 cks. J. W. Cook & Co.
" 90 Cayzer, Irvine, & Co.

Chemicals *(otherwise undescribed)*
Germany, £6 Argo S. S. Co.
" 70 L. & I. D. Jt. Co.
" 20 T. H. Lee
" 13 Phillipps & Graves
" 15 A. & M. Zimmerman
E. Turkey, 10 C. F. Gerhardt
Belgium, 199 T. Palmer
" 10 Sawer, Sons, & Co.
" 20 C. Atkins & Nisbet
" 400 H. Harkness
Holland, 80 "
" 50 J. Owen
" 231 Netherlands S. B Co.
Sweden, 10 A. G. Barker
U. States, 495 S. C. Jones

Colours—
Holland, 15 cks. R. Baelz & Co.

Cream of Tartar—
France, 8 pks. L. & I. D. Jt. Co.
" 6 c. C. Atkins & Nisbet
" 5 M. Ashby, Ld.
" 5 B. & F. Wf Co., Ld.
" 3 W. C. Bacon & Co.
Holland, 32 Kirkpatrick, Barr & Co.

Dyestuffs—
Argols
Italy 1,714 pks. B. Jacob & Sons
" 64 Thames S. T. & L. Co, Ld.
Cochineal
Canaries, 35 pks. W. M. Smith & Sons
" 4 Sperling & Williams
Cutch
Straits, 6 pks. Borneo Co, Ld.
Rangoon, 204 L. & I. D. Jt Co.
Extracts
U. States, 10 pks. Rosenberg, Loewe & Co.
" 50 W. Burton & Co.
Germany, 5 T. H. Lee
" 221 Argo S. S. Co.
Denmark, 3 M. D. Co.
" 1 L. P. D. Co.
" 2 Tegner, Price, & Co.
Canada, 165 Furness, Withy, & Co.
" 330 Boutcher, Mortimore & Co.
France, 100 Beresford & Co.
" 40 T. H. Lee
Austria, 136 Hoare, Wilson, & Co.
Gambier
Straits, 500 pks. Leach & Co
" 513 H. A. Litchfield & Co.
" 2,385 Prop. Hay's Wf.
" 253 Adamson, Gilfillan, & Co.
" 951 Brown & Elmslie
Indigo
E. Indies, 5 chts. Croysdale & Co.
" 27 Kaltenbach & Schmitz
Saffron
Spain, 1 pk. J. Barber & Co.
Sumac
Italy, 50 pks. King
Tanners' Bark
Melbourne, 23 t. Baxter & Hoare
" 74 Fisher, King, & Co.
Adelaide, 50 Leach & Co
Cape, 10 Beresford & Co.
Belgium, 11 pks. Leach & Co.
Turmeric
Holland, 10 pks. Perkins & Homer
China, 101 R. Warner & Co.
Valonia
E. Turkey, 60 t. Boutcher, Mortimore, & Co.

Dyestuffs *(otherwise undescribed)*
Holland, 2 pks. L. C. & D. Rly. Co.
France, 100 Netherlands S. B. Co.

Farina—
Germany, 310 pks. T. H. Lee
" 100 Vokins & Co., Ld.
" 100 J. Knill & Co.
Holland, 140 G. Harker & Co.
U. States, 20 Pickford & Co.

Fluoride of Chloride—
Holland, £35 R. W. Greeff & Co.

Gamboge—
E. Indies, 6 cs. L. & I. D Jt. Co

Glucose—
U. States, 100 pks. 588 c. Fellows, Morton & Co.
" 2,623 15,638 R. G. Hall & Co.
" 150 900 E. & T. Pink
" 25 73 G. Clarke & Son
" 100 585 C. & E. Morton
France, 400 400 L. Norman & Co., Ld.
Holland, 307 542 J. Barber & Co.
Germany, 45 410 Beresford & Co.

Glue—
Belgium, £29 Leach & Co.
" 575 G. E. Banes
" 575 T. M. Duche & Sons
Germany, 12 L. & I. D. Jt. Co.
U. States, 60 Taylor Brs.
" 17 Beresford & Co.
France, 300 T. M. Duche & Sons
" 32 Mory & Co
" 40 B. & F. Wf. Co. Ld.
Holland, 30 Phillipps & Graves

Glycerine—
Turkey, £1,274 H. Hill & Sons
N. Zealand, 80 "

Gutta Percha—
Straits, 11 t. Gilman Brs & Co.
" 33 19 c. W. Pope & Co.
Germany, 3 Chautard & Christensen
France, 1 Messageries & Parisiennes

Lead Acetate—
Germany, £80 Petri Brs.
" 4 pks. R. W. Greeff & Co

Litharge—
Holland, 16 pks. J. Owen

Lithopone—
Holland, 40 pks Burrell & Co.

Manganese Ore—
Germany, 1 t. Burrell & Co.

Manure—
E. Indies, 206 t. Soundy & Sons
" 100 Fox, Roy & Co.
" 80 Union L. Co., Ld.
Sydney, 1 Australian Meat Co.
France, 1 T. Tanner & Co.

Methylic Alcohol—
Germany, 120 g. T. Jones & Co.
" 720 W. Iszard
France, 2,485 E. Catlin
U. States, 1,069 H. Wallace & Co.

Molasses—
U. States, 143 cks. 900 c Deering & Robotton
" 1,000 610 J. W. Cook & Co.
" 500 2,883 G. Honzee

Ochre—
Italy, 515 pks. A. Laming & Co,
France, 21 W. Slimmon
" 308 W. Harrison & Co.
Holland, 36 Phillipps & Graves
U. States, 300 Binney & Smith

Phosphates—
U. States, 1,338 t. A. Hunter & Co.

Potash—
France, 10 pks. T. H Lee

Potassium Bromide—
Holland, 13 pks. R. W. Greeff & Co.

Potassium Carbonate—
Germany, 5 t. Fuerst Brs.
" 5 Ralli Brs.
Canada, 11 Charles & Fox

Potassium Oxalate—
Holland, 10 pks. R. W. Greeff & Co.

Red Lead—
Holland, 19 pks. J. Owen

Rosin—
U. States, 1,000 brls. H. Hill & Sons
" 500 J. Knight & Son
Belgium, — Sawer, Sons, & Co
" 50 J. Watt & Son

Salicylic Acid—
Belgium, 20 pks. J. Cockerill Line

Saltpetre—
Germany, 143 cks. P. Hecker & Co.
" 50 bgs. L. & I. D. Jt Co.
E. Indies, 1,155 Phillipps & Graves
Belgium, 250 Chilworth Gunpowder Co.

Soda—
Austria, 5½ t. City Coml. Wf., Ld.

Sodium Hyposulphite—
Germany, 20 pks. Petri Brs.

Sodium Prussiate—
Belgium, 32 pks. J. Owen

Starch—
Holland, 50 pks. G. S. N. Co.
" 2,820 Little & Johnston
U. States, 1,800 Union Ltge. Co., Ld.
" 125 C. Tennant, Sons & Co.
" 25 Beck & Pollitzer
Germany, 400 Horne & Co.
" 187 Argo S. S. Co
" 530 Seaward Brs., Ld.
Belgium, 200 Sawer, Sons, & Co
" 320 T. Ronaldson & Co.
" 1,120 T. H Lee
" 212 Leach & Co.
" 40 J. Smither & Son
" 650 Becker & Wagner
France, 218 E. & T. Pink

Stearine—
Holland, 13 bls. J. Owen
" 26 J. Barber & Co
Belgium, 3 cks. T H. Lee
" 87 bgs. H. Hill & Sons

Strontium Carbonate—
Holland, 50 pks. C. Lamb & Co.

Sulphate (Alumina)—
Belgium, 400 sks, Union L. Co., Ld.

Sulphur—
Italy, 100 t. W. C. Bacon & Co.
" 5 J. Barber & Co.

Sulphur Chloride—
Holland, 19 pks. Typke & King

Tallow—
N.S.W., 661 cks Goad, Rigg, & Co.
" 138 Flack, Chandler, & Co.
" 160 Phillipps & Graves
" 25 Union Ltge. Co., Ld.
" 353 Kleinworth, Sons & Co.
" 39 Culverwell, Brooks, & Co.
" 49 Aust. Meat Co.
" 250 Anning & Cobb
" 268 Phillipps & Graves
" 310 Elkan & Co.
" 100 Hoare, Wilson, & Co.
" 5 F. Green & Co.
N. Zealand, 268 Phillipps & Graves
" 4 J. Greig
" 40 Deering & Robottom
" 73 J. Graves
" 240 Beresford & Co.
" 200 Goad, Rigg, & Co.
" 47 Dalgety & Co., Ld.
" 84 N. M. & A. Co.
" 15 Lucas & Spencer's Wf.
" 557 J. W. Cook & Co., Ld
" 8 Flack, Chandler, & Co
" 3 Culverwell, Brooks, & Co.
U. States, 6 W. Dixon
" 100 C. S. Lovell
Germany, 75 "
Victoria, 121 H. Lambert
" 22 J. Terry & Co.
" 95 Hicks, Nash, & Co.
" 777 Phillipps & Graves
" 36 H. Hill & Sons
" 334 Elkan & Co.
Falkland Is., 50 Goad, Rigg, & Co.
Queensland, 21 Dalgety & Co., Ld.
" 149 Phillipps & Graves
France, 35 Berlandina Brs.

Tartar—
Italy, 44 pks. Howards & Sons
" 11 Fellows, Morton, & Co.
" 86 B. Jacob & Sons
" 2 W. C. Bacon & Co

Tartaric Acid—
Holland, 10 pks. Kirkpatrick, Barr, & Co

Ultramarine—
Holland, 2 pks. J. Barber & Co.
" 10 W. Harrison & Co.
" 8 Phillipps & Graves
" 3 G S N. Co.
" 5 A. G. Soutter & Co.
Belgium, 1 Lavington Brs.
" 4 H Brookes & Co.
" 10 J. Harrison
Germany, 4 J. E. Kitton
" 39 Steinhoff, Sons, & Co.

Varnish—
France, 6 pks. Mory & Co.
" 8 R. Thompson
Belgium, 5 Wilson, Sons, & Co., Ld.
U. States, 13 Taylor Brs.
Holland, 7 Phillipps & Graves

Verdigris—
France, 3 pks. B. & F. Wf. Co.
" 2 C. F. Gerhardt

White Lead—
Holland, 15 cks. R. Baelz & Co.
" 102 pks. Randall Brs.
" 39 W. Balchin, Ld.
" 18 A. & M. Zimmermann
Belgium, 58 T. & W. Farmiloe, Ld.
" 22 J. Watt & Son
" 56 J. L. Lyon & Co.
France, 10 B. & F. Wf. Co., Ld.

Wolfram Ore—
Townsville, 1 t. H. Bath & Sons

Wood Pulp—
Sweden, 240 pks. Alsing & Co, Ld.
" 250 Tough & Henderson
" 540 W. G. Taylor & Co.
" 180 Andrews & Co.
Canada, 560 A. E. Reed & Co.
" 1,078 Henderson, Craig, & Co.
Norway, 1,600 J. Sharp
" 240 Erith & D. L. Co.
Belgium, 2,432 J. Harrison

Zinc Oxide—
Germany, 50 pks. Prprs. Dowgate Dk.
Belgium, 100 Kerestedji & Co.
U. States, 210 M. Ashby, Ld.

Zinc White—
Holland, 2 pks. Phillipps & Graves
" 2 J. Barber & Co.

MANCHESTER.

Week ending August 26th.

Antimony—
Treport, 2 cks.

Antimony Salt—
Rotterdam, 4 cks.

Barytes—
Hamburg, 4 cks.
Rotterdam, 15

Chromium Acetate—
Rotterdam, 10 cks.

Coal Products—
Alizarine
Rotterdam, 42 cks.
Aniline
Antwerp, 3 cks.
Tar
Hamburg, 50 crts.

Colours—
Antwerp, 2 cks. 10 cs.
Hamburg, 1 10
Rotterdam, 232 20
25 bxs.

Cream of Tartar—
Rotterdam, 30 kgs.

Dyestuffs—
Extract
Rotterdam, 10 cks.
Rouen, 20 cs.
New York, 3 brls.
Logwood
Laguna de Terminos, 470 t. D. Midgley & Sons

Glucose—
New York, 50 brls.
Rotterdam, 10 cks 50 cs.

Glue—
Antwerp, 5 cks. 10 bls.
Hamburg, 40 kgs.
20 bgs.
Rouen, 20
8 cks. 10 bls.

Glycerine—
Rotterdam, 2 dms.

Limestone—
Antwerp, 15 crts.
Lithopone—
Rotterdam, 29 cks.
Nitrate—
Rotterdam, 18 cks.
Paraffin Wax—
Hamburg, 100 brls.
New York, 290
Potash—
Hamburg, 42 cks.
Potassium Carbonate—
Hamburg, 10 cks.
Potassium Muriate—
Hamburg, 67 cks.
Potassium Oxalate—
Rotterdam, 5 cks.
Potassium Prussiate—
Rouen, 7 cks.
Red Lead—
Rotterdam, 7 cks.
Rosin—
New York, 250 brls.
Saltpetre—
Hamburg, 20 kgs. 2 brls.
Soap—
Rotterdam, 5 cs.
Sodium Tungstate—
Hamburg, 2 cks.
Starch—
Antwerp, 309 cs.
Hamburg, 290 / 10 cks.
New York, 829 bgs.
Rotterdam, 15 50 bls.
Sulphate (Alumina)—
Rotterdam, 31 cks.
Sulphuric Acid—
Rotterdam, 5 cs.
Tartaric Acid—
Rotterdam, 24 cks.
Ultramarine—
Hamburg, 9 cks.
Wood Pulp—
Hamburg, 180 pks.
Miramichi, 2,564 bls.
Quebec, 5,781 357
Rotterdam, 480
Zinc Oxide—
Antwerp, 18 cks.
Rotterdam, 56 brls.

LIVERPOOL.

Week ending August 24th.

Acetate of Lime—
New York, 1,247 bgs.
Alumina Chloride—
Boston, 1 brl. Eng. & Amer. Mch. Co.
Antimony—
Valparaiso, 562 sks. Oetling Brs.
" 460 Kleinwort, Sons, & Co.
Barytes—
Antwerp, 18 cks.
Rotterdam, 22
Bone Grease—
Baltimore, 100 brls. E. Valk
Bones—
Boston, 25 brls.
Borate of Lime—
Iquique, 7,170 sks.
Mollendo, 6,114
Borax—
Valparaiso, 625 bgs. Duncan, Fox, & Co.
" 2,910
Castor Oil—
Antwerp, 49 brls.
Colours—
Antwerp, 1 ck.
Cottonseed Oil—
New York, 50 brls.
Cream of Tartar—
Bordeaux, 43 cks.
Dyestuffs—
Argols
Bordeaux, 40 cks. / 99 bgs.
Cochineal
Las Palmas, 6 bgs. G. S. Bruce
W.C. Africa, 83 Emilio Ping
Cutch
Singapore, 1,094 bxs. / 51 cs.
Extract
Havre, 8 cs. 30 cks. Cunard S. S. Co.
Philadelphia, 100 brls.
Genoa, 30
Fiume, 119 Oak Extract Co.
Sumac
Palermo, 1,253 bgs.
Barcelona, 100 bls.
Marseilles, 10
Valonia
Smyrna, 20 t. 330 bgs.
Dyewood Extract—
New York, 200 brls. McArthur
21 bxs. & Co.
" 25 brls S. Atkin & Co.
Farina—
Fiume, 120 bgs.
Glucose—
New York, 125 brls.
Baltimore, 450 bdls.
Rotterdam, 10 cks.
Glue—
Fiume, 160 bgs.
Rotterdam, 5 brls.
Gutta Percha—
Rotterdam, 10 cks.
Limestone—
Antwerp, 2 crts. J. T. Fletcher & Co.
Lithopone—
Rotterdam, 43 cs.
Logwood Extract—
New York, 91 cks.
Manure—
Karachi, 3,000 bgs.
Molasses—
N. Orleans, 1,500 brls.
Paint—
New York, 5 bxs. Diamond Match Co.
Paraffin Wax—
New York, 1,620 brls. Thompson & Bedford
Philadelphia, 620 Anglo-Amer. Oil Co.
Phosphates—
Punta Gorda, 1,000 t.
Bona, 2,250
Potash—
Stettin, 2 cks. Sachse & Klemm
Montreal, 25 brls.
Pyrites—
Huelva, 4,300 t. Matheson & Co.
Red Lead—
Rotterdam, 30 cks. / 3 cs.
Rosin—
Baltimore, 1,499 brls.
Boston, 1,000
New York, 2,500
Silver Sulphate—
Valparaiso, 16 sks. G. J. Leslie
Soap—
Boston, 10 cs.
Bari, 148
New York, 1 Bibby Brs. & Co.
Marseilles, 17 / 20 dms. / 40 cks.
N. Orleans, 100 brls.
Newport News, 264
Venice, 6 M. Carden & Co.
Soapstone—
Bordeaux, 260 bgs. Geo. G. Blackwell, Sons, & Co.
Sodium Chlorate—
Marseilles, 100 cks.
Starch—
Boston, 7 brls. Hickley, Launday, & Co.
Antwerp, 16 bgs.
Baltimore, 200
Rotterdam, 40
Stearine—
Antwerp, 6 bgs.
Superphosphates—
Yokohama, 1 cs.
Tallow—
New York, 565 tcs.
" 100 Bank of Metelin
" 40 cks. J. W. De Silva & Co.
" 150 hhds. M. M. Schlutz & Co.
Baltimore, 350 tcs.
Philadelphia, 595
B. Ayres, 1 bg. 300 pps.
Tartar—
Bari, 1 ck. Taylor, Irvine, & Co.
Ultramarine—
Antwerp, 4 cks.
Varnish—
New York, 15 brls. W. A. Warren
Philadelphia, 1 bx.
Verdigris—
Marseilles, 20 cks.
White Lead—
Rotterdam, 43 cs. / 4 cks. / 154 bls.
Wood Pulp—
New York, 25 bdls. / 3 crts.
Rotterdam, 9 pks.
Zinc Oxide—
Antwerp, 10 brls. / 6 cks.

HULL.

Week ending August 26th.

Acids—
Stockholm, 1 ck.
Alcohol—
Hamburg, 1 ck. Bailey & Leetham, Ld.
Antimony—
Leghorn, 40 cks. Wilson,
" 40 Sons, & Co., Ld.
Rotterdam, 3 Hull & Netherlands S. S. Co.
Trieste, 15 brls. Wilson Sons, & Co., Ld.
Asbestos—
Genoa, 36 pks.
Barytes—
Amsterdam, 57 cks. Hull & Netherlands S. S. Co
Antwerp, 36 Bailey & Leetham, Ld.
" 40 A. Sanderson & Co.
Bremen, 21 G. Holmes & Co.
" 28
Rotterdam, 65 Hull & Netherlands S. S. Co.
Boracic Acid—
Leghorn, 55 cks. Wilson,
" 6 brls. Sons, & Co., Ld.
Chemicals *(otherwise undescribed)*
Hamburg, 2 cs. Bailey & Leetham, Ld.
New York, 110 brls.
Trieste, 26 cks.
Coal Products—
Alizarine
Rotterdam, 56 cks. / 31 pks / 49 brls. / 1 bx. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 92 pks. Hull & Netherlands S. S. Co.
Pitch
Copenhagen, 40 brls. Wilson, Sons, & Co., Ld.
Tar
Hamburg, 1 brl. Major & Co.
Libau, 12
Colours—
Antwerp, 136 pks. Wilson,
" Sons, & Co., Ld.
" 4 cks. Bailey & Leetham, Ld.
Bremen, 6 Veltmann & Co
" 4 cs. J. Pyefinch & Co.
Ghent, 1 ck. Wilson,
Marseilles, 14 cs. Sons, & Co., Ld.
Rotterdam, 102 pks. Hull & Netherlands S. S. Co.
" 2 brls
Stettin, 12 cks. Wilson, Sons, & Co., Ld.
Cream of Tartar—
Rotterdam, 4 cks. Hull & Netherlands S S Co.
Dyestuffs—
Extract
Fiume, 125 brls. Wilson,
Hamburg, 16 pks. Sons, & Co., Ld.
Rouen, 46 "
Logwood
Hamburg, 135 bgs. Wilson, Sons, & Co., Ld.
Dyewood—
Antwerp, 90 bls. Wilson, Sons, & Co., Ld.
Farina—
Stettin, 100 bgs. Wilson, Sons, & Co., Ld.
Glucose—
New York, 350 brls. Wilson,
" 685 Sons, & Co., Ld.
Glue—
Rotterdam, 10 bgs. Hull & Netherlands S. S. Co.
Glue Stock—
Hamburg, 319 bls. Wilson, Sons, & Co., Ld.
Lead Acetate—
Stettin, 14 cks. Wilson, Sons, & Co., Ld.
Limestone—
Antwerp, 6 crts. Wilson, Sons, & Co., Ld.
Litharge—
Antwerp, 4 cks. Bailey & Leetham, Ld.
Lithopone—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Manure—
Karachi, 2,000 bgs.
Ochre—
Leghorn, 64 bgs.
Marseilles, 76 cks.
Rouen, 30 Wilson, Sons, & Co., Ld.
Paraffin Wax—
New York, 950 brls.
Potash—
Antwerp, 58 cks. Wilson,
Dunkirk, 54 " Sons, & Co., Ld.
Hamburg, 100 bgs. "
Red Lead—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.
Saltpetre—
Hamburg, 19 cks. Wilson, Sons, & Co., Ld.
Soap—
Bari, 6 cs.
Boston, 6
Dunkirk, 2 Wilson, Sons, & Co., Ld.
Hango, 1 Aspergren & Co.
Marseilles, 6 Wilson, Sons, & Co., Ld.
Naples, 163 "
Soda—
Antwerp, 17 cks. Wilson, Sons, & Co., Ld.
Fiume, 4 "
Ghent, 50 bgs. "
Sodium Acetate—
Rouen, 16 cks. Wilson, Sons, & Co., Ld.
Sodium Sulphate—
Antwerp, 3 dms.
Starch—
Amsterdam, 30 bgs. Hull & Netherlands S. S. Co.
Antwerp, 200 / 80 cs.
" 90 J. Hall & Sons
Bremen, 2,682 Veltmann & Co.
Ghent, 225 Wilson, Sons, & Co., Ld.
New York 123 bgs.
Stearine—
Antwerp, 44 bgs. Wilson, Sons, & Co., Ld.
Hamburg, 10 cs.
New York, 19 hds.
Sulphur—
Catania, 252 bgs. Wilson, Sons, & Co., Ld.
" 1,132 pks.
" 50 t.
Tallow—
Boston, 260 trcs. Wilson, Sons, & Co., Ld.
Dunkirk, 117 cks. "
New York, 295 "
Tartar—
Barletta, 70 cks. Wilson, Sons, & Co., Ld.
Molfetta, 1 "
Tartaric Acid—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.
Turpentine—
Libau, 53 brls.

Riga, 64 cks. Wilson, Sons, & Co., Ld.

Ultramarine—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.

White Lead
Amsterdam, 49 cks. Hull & Netherlands S. S. Co.
Rotterdam, 68 "

Wood Pulp—
Abo, 140 bls. J. Good & Sons
Bergen, 132 pks. Wilson, Sons, & Co., Ld
Christiania, 540 "
Drontheim, 261 bls "
Gothenburg, 392 bdls. "
" 503 bls. "
Hamburg, 200 pks. "
Hango, 2 bls. J. Good & Sons
New York, 1,600 pks. Wilson, Sons, & Co., Ld.
Norrkoping, 90 bls. "

Zinc Oxide—
Antwerp, 50 brls. Bailey & Leetham, Ld.

Zinc White—
Rotterdam, 25 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending August 31st.

Acetic Acid—
Rotterdam 8 cks. J. Rankine & Son
35 crbys.

Alum—
Amsterdam, 15 cks.

Barytes—
Hamburg, 90 bgs.
Amsterdam, 23 cks.
Rotterdam, 44 pks. J. Rankine & Son

Bleach—
Hamburg, 35 cks.

Bleaching Powder—
Rotterdam, 55 cks. J. Rankine & Son

Chemicals *(otherwise undescribed)*
Amsterdam, 5 cs. J. Rankine & Son
" 1
Hamburg. 5
Rotterdam, 11 cks. J. Rankine
3 cs. & Son

Chrome Alum—
Rotterdam, 3 cks. J. Rankine & Son

Coal Products—
Alizarine
Rotterdam, 16 cks. J. Rankine & Son
Aniline
Rotterdam, 27 cks. J. Rankine
15 cs. & Son
Aniline Colours
Amsterdam, 1 ck. J. Rankine & Son

Colours—
Rotterdam, 5 cks. J. Rankine
64 pks. 1 cs. & Son
Hamburg, 6 cs. / 12 cks. / 4 pks.

Cream of Tartar—
Nantes, 9 cks.

Dyestuffs—
Extract
Nantes, 35 cks.

Gelatine—
Rotterdam, 1 ck. J. Rankine & Son

Glucose—
New York, 100 cs.
Baltimore, 399 brls.

Glue—
Boston, 10 / 10 kgs. / 1 cs.
New York, 249 brls.
Hamburg, 10 bgs.

Lead Acetate—
Hamburg, 23 cks.

Logwood—
Cape Hayti, 500 t.

Magnesium Sulphate—
Hamburg, 500 bgs.

Ochre—
Baltimore, 78 brls.

Oxalic Acid—
Rotterdam, 12 cks. J. Rankine & Son

Phosphates—
Ghent, 1,010 bgs.

Potash—
Hamburg, 20 dms. / 77 cks.

Potassium Bichromate—
Montreal, 2 cks.

Pyrites—
Huelva, 2,139 t. Tharsis Sulphur & Copper Co.

Rosin—
New York, 600 brls.
" 755
Baltimore, 1,900

Soap—
New York, 1,820 bxs.

Starch—
New York, 120 bgs.
Rotterdam, 13 cs. J. Rankine & Son

Talc—
New York, 354 bgs.

Tallow Oil—
Boston, 60 tcs.

Tartar—
Nantes, 17 cks.

Ultramarine—
Rotterdam, 13 cs. J. Rankine & Son

Varnish—
New York, 21 brls. / 1 cs.

Waste Salt—
Hamburg, 254,000 kilos / 251 cks. / 500 bgs. / 150 t.

Wood Pulp—
Christiania, 2,231 bls.
Gothenburg, 294
Hamburg, 96

Zinc White—
Rotterdam, 50 pks. J. Rankine & Son

TYNE.

Week ending August 26th.

Asbestos—
Hamburg, 58 bgs. Tyne S. S. Co.

Barytes—
Rotterdam, 631 bgs. Tyne S. S. Co.

Castor Oil—
Antwerp, 27 brls. Tyne S. S. Co.

Chalk—
Hamburg, 5 cs. Tyne S. S. Co.

Coal Products—
Pitch
Archangel, 250 cks. Clark & Co.
Tar
Archangel, 1,170 brls. — Mawson

Colours—
Antwerp, 2 cks. Tyne S. S. Co.
Hamburg, 4 "

Glucose—
New York, 550 brls. Furness, Withy, & Co.

Glue—
Hamburg, 1 cs. Tyne S. S. Co.
New York, 35 cks. Anglo-American Oil Co.

Limestone—
Antwerp, 8 crts. Tyne S. S. Co.

Paint—
New York, 45 cks. Anglo-American Oil Co.

Paraffin Wax—
New York, 45 brls. Furness, Withy, & Co.

Red Lead—
Amsterdam, 11 cks. W. Swanston & Sons

Salt Cake—
Antwerp, 1 bg. Tyne S. S. Co.

Soap—
New York, 202 bxs. Furness, Withy, & Co.
Rotterdam, 10 cs. Tyne S. S. Co.

Sodium Nitrate—
Tocopilla, 14,391 bgs. J. Cameron. Swan, & Co,

Starch—
Antwerp, 40 cs. Tyne S. S. Co.
Ghent, 60 "
Rotterdam, 186 "

Wood Pulp—
Christiania, 33 cs. / 800 bls
Gothenburg, 230 pks.
" 40 bls. Pyman Bell, & Co.
Trondhjem, 89 P. H. Matthiessen & Co.

Zinc Oxide—
New York, 100 brls. Furness, Withy, & Co.

Zinc Sulphate—
Gothenburg, 50 bgs.

GOOLE.

Week ending August 23rd.

Antimony—
Boulogne, 1 cs.

Barytes—
Antwerp, 110 bgs. / 21 cks.
Rotterdam, 22 / 110 bgs.

Caoutchouc—
Boulogne, 2 cks.

Chemicals *(otherwise undescribed)*
Ghent, 2 cks.

Coal Products—
Alizarine
Rotterdam, 9 cks.

Colours—
Hamburg, 26 cks. 94 cs.

Dyestuffs *(otherwise undescribed)*
Amsterdam, 7 cks.
Boulogne, 43 7 cs.
Rotterdam, 160 18 3 pks.

Glucose—
Hamburg, 20 cks.

Glue—
Boulogne, 1 ck.

Logwood—
Belize, 965 t.

Phosphates—
Ghent, 808 bgs.

Potash—
Calais, 32 dms.
Hamburg, 14 cks.

Potassium Sulphate—
Dunkirk, 60 dms.

Quebracho Extract—
Antwerp, 10 brls.

Saltpetre—
Hamburg, 1 ck.
Rotterdam, 100 bgs.

Starch—
Ghent, 179 cs.

Waste Salt—
Hamburg, 160 t. / 129 cks.

White Lead—
Rotterdam, 11 cks.

GRIMSBY.

Week ending August 26th.

Caoutchouc—
Hamburg, 17 cs.
Rotterdam, 1 pk.

Chemicals *(otherwise undescribed)*
Antwerp, 5 cks. 1 cs.
Hamburg, 6 2

Coal Products—
Aniline Dyes
Antwerp, 105 pks.
Hamburg, 2 cks. 83
Rotterdam, 1 kg.
Dyes
Hamburg, 84 pks

Colours—
Antwerp, 15 pks.
Hamburg, 9
Rotterdam, 4 kgs.

Dyestuffs—
Extract
Dieppe, 9 cks.

Painters' Colours—
Antwerp, 8 cks.
Hamburg, 5 7 pks.

Salt—
Setubal, 2,060 t.

Wolfram Ore—
Hamburg, 10 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending August 30th.

Acids—
Penang 7 cs. £25

Alkali—
Christchurch, 1 t. 4 c. £28

Ammonia—
Sydney, 8 cs. £11
Adelaide, 25 dms. 43
Colombo, 6 12
Rotterdam, 2 14

Ammonia (Anhydrous)—
Cologne, 21 cylds. £60

Ammonium Carbonate—
Sydney, 16 cs. £24
New York, 1 t. 1 c. 30
Antwerp, *2* *16* 75

Ammonium Muriate—
Christiania, 2 t. 18 c. £55
Rotterdam, 7 cks. 2 85
Cologne, 12 2 44

Ammonium Sulphate—
Alicante, 210 t. £2,625
Barbadoes, 50 625
Cape Town, 230 t. 1,705
Amsterdam, 656 9 c. 8,445

Bone Ash—
Fremantle, 1 t. £23

Boracic Acid—
Yokohama, 2 t. 10 c. £62

Borax—
Copenhagen, 15 c. £17
Fremantle, 3 t. 138
Brisbane, 10 19
Dunedin, 1 17
Yokohama, 3 48
Mombassa, 15 cks. 40

Carbonic Acid Gas—
Channel Is., 78 tubes £29
Rotterdam, 7 flasks 40 dms. 28

Caustic Soda—
Patea, 3 c. £7
Canterbury, 13 44
Hobart, 2 6
Dunedin, 1 t. 10 37
Pt. Said, 5 5
Melbourne, 1 10 8
Shanghai, 1 4 16
Pt. Elizabeth, 4 2 6
E. London, 5 8 47
Durban, 2 20

Chemicals *(otherwise undescribed)*
E. London, 40 cs. £143
Gothenburg, 20 cks, 14
Jamaica, 2 pks. 18
Ostend, 2 255
Demerara, 125 32
St. Michaels, 2 17
Yokohama, 15 153
Sydney, 2 8 151
Singapore, 6 17
Melbourne, 3 130 175
Auckland, 14 29
Montreal, 6 98
Antwerp, 16 234
Dunkirk, 21 dms. 75
Brisbane, 1 10
New York, 16 100 1,263
Brussels, 10 kgs. 2 87
Lyttelton, 25 31
Hamburg, 25 8 pks. 307
Amsterdam 5 33
Rotterdam, 10 62

Chloride of Lime—
E. London, 1 t. £9
Pt. Elizabeth, 11 c. 5

Citric Acid—
Rotterdam, 2 kgs. £17
Piræus, 1 9
Wellington, 2 c. 14
Amsterdam, 10 80
Genoa, 1 t. 122
Hamburg, 5 41
Calcutta, 2 cks 52

Coal Products—
Alizarine
St. Petersburg, 10 cs. £499
Aniline
Madras, 1 cs. £5
Calcutta, 1 69
Anthracene
Rotterdam, 420 cks. £596
Cologne, 28 70
Benzol
Hamburg, 25 cks. £44
Carbolic Acid
New York, 15 cks. £118
Pt. Elizabeth, 2 cs. 50 dms. 36
Coal Tar Dyes
Lyttelton, 2 kgs. £20
Creosote
Bordeaux, 446 cks. £350
Ostend, 22,600 brls. 250
Naphtha
Sydney, 10 dms. £7
Melbourne, 170 95
Naphthaline
Tientsin, 20 cks. £18
New York, 30 cs. 81
Hamburg, 36 95
Rotterdam, 4 5
Pt. Elizabeth 10 6
Paris, 51 bgs. 48
Amsterdam, 6 5
Pitch
Boston, £269
Mombassa, 45 cks. 15
Paris, 1 12
Gibraltar, 6 brls. 5
Montreal, 250 59
Adelaide, 8 15
Hongay, (in bulk) 2,520
Treport, 60 105
Pyridine
Cologne, 24 cks. £230
Stettin, 10 95
Tar
Calcutta, 10 cks. £7
Gibraltar, 6 brls. 6
Singapore, 50 80
Hamburg, 100 45
Durban, 50 dms. 8
Mombassa, 100 50
Pt. Elizabeth, 650 28
Tar Oil
Peston, 250 cks. £219

Coal Products (*otherwise undes.*)—
Singapore, 25 dms. £25

Cream of Tartar—
Wellington, 5 c. £20
Patea, 3 11
Cape Town, 2 10
Durban, 9 38
Westport, 4 16

Disinfectants—
Paris, 70 cks. £40
Sydney, 30 cs. 52 pks. 173
Melbourne, 150 110
Channel Is., 42 10
Madras, 15 kgs. 15
Fremantle, 20 dms. 18
Jamaica, 10 10
New York, { 4 / 25 brls. 45
Durban, 80 cks. 40 40
Penang, 1 50 cs. 27 52
Saigon, 3 1 17
Durban, 5 20
Pt. Elizabeth, 170 340
Calcutta, 10 15

Glycerine—
Hamburg, 5 t. 4 c. £135
Gothenburg, 20 4 808
Yokobama, 4 174

Guano—
Dunkirk, 116 t. £625

Manure—
Pt. Elizabeth, 4 t. 9 c. £40
Demerara, 50 400
Barbadoes, 29 324
Wellington, 20 8 70
Lyttelton, 102 315
Cape Town, 153 19 644
Dunedin, 38 13 120
Timaru, 71 8 220
Orotava, 11 58
Riga, 301 7 725

Nitric Acid—
Channel Is., 14 crbys. £20

Oxalic Acid—
Sydney, 1 t. 8 c. £36

Pearl Ashes—
Sydney, 1 t. 3 c. £17

Potash—
Shanghai, 10 c. £6

Potassium Chlorate—
Antwerp, 100 cks. £155
Hamburg, 92 pks. 151

Potassium Cyanide—
Auckland, 7 t. 10 c. £840
Geraldton, 1 10 182
Rockhampton, 1 115
Charters Towers, 7 849
Melbourne, 7 6 699
Durban, 5 496
Sydney, 2 14 309
Pt. Elizabeth, 5 10 535
Hiogo, 20 cs. 58
Cartagena, 2 22

Potassium Nitrate—
Sydney, 1 t. £21

Potassium Prussiate—
Leghorn, 7 c. £25
Yokohama, 10 41

Salammoniac—
Antwerp, 1 t. £35
Mombassa, 15 cks. £45

Saltpetre—
Canterbury, 10 c. £10
Copenhagen, 5 t. 7 95
Vigo, 3 16 76

Sheep Dip—
Wellington, 2 t. 3 c. £60

Soda—
Rotterdam, 5 t. 9 c. £30
Cape Town, 11 13 38
Singapore, 1 19 7
Durban, 2 11
Quebec 8 7

Soda Ash—
Oamaru, 2 t. 16 c. £17

Soda Crystals—
Antwerp, 1 t. 5 c. £5
Ghent, 3 10 9

Sodium Bicarbonate—
Sydney, 1 t. £23
Auckland, 2 1 c. 6
Townsville, 1 14 11
M. Video. 3 8

Sodium Silicate—
Terceira, 7 t. 19 c. £30

Sodium Sulphate—
Ghent, 50 t. £75

Sulphur—
Colombo, 20 kgs. £9
Mombassa, 12 pks. 13
Lisbon, 50 brls. 33

Sulphuric Acid—
Cape Town, 3 t. £28
Pt. Elizabeth, 2 14 c. 25
Trincomalee, 3 5 30
Durban, 15 18

Superphosphates—
Huelva, 203 t. 1 c. £775

Tartaric Acid—
Townsville, 1 c. £7
Brisbane, 4 27
Adelaide, 4 26

Waste Salt—
Seville, 12 t. 6 c. £97

LIVERPOOL.

Week ending August 30th.

Alkali—
Calcutta, 3 t. 2 c. 2 q. £14

Alum—
Sao Paulo, 1 t. £5

Aluminous Cake—
Borneo, 57 t. 16 c. £133
Melbourne, 7 4 1 q. 19

Ammonia—
Las Palmas, 15 c. £91
M. Video, 1 cs. 6

Ammonia (Anhydrous)—
Alexandria, 3 cs. £10

Ammonium Carbonate—
Valparaiso, 1 t. 17 c. £46
B. Ayres, 1 5 32
Genoa, 1 14 48
Naples, 17 24
Marseilles, 17 21
Montreal, 27 kgs. 38

Ammonium Muriate—
Antwerp, 2 t. 4 c. £47
Melbourne, 1 21
Stettin, 5 96
Trieste, 1 5 24
Hiogo, 1 20
Philadelphia, 5 11 130
Sydney 1 1 q. 27

Ammonium Sulphate—
Gd. Canary, 30 t. 5 c. 2 q. £370
Bilbao, 10 131
New York, 76 19 925
Civita Vec., 10 6 130
Barcelona, 50 600
Valencia, 101 5 3 1,249
Philadelphia, 76 14 2 955
Bordeaux, 30 8 380
Malaga, 50 12 635
Honolulu, 560 7 2 6,993
Newport News, 102 9 1,287
Las Palmas, 45 17 1 571

Arsenic—
Pernambuco, 1 t. £20

Basic Slag—
Algoa Bay, 7 t. £15

Bleaching Powder—
Amsterdam, 162 cks.
Baltimore, 73
Barcelona, 30
Beyrout, 30
Bombay, 30 cs.
Boston, 611 cks. 30 bxs.
Christiania, 50
Leghorn, 84
Lowell, 84
Mexico City, 4
Muncie, 74
New York, 230 30
Philadelphia, 164
San Sebastian, 38
Tampico, 900 brls.

Boracic Acid—
Montreal, 12 c. £16

Borax—
Kingston, 5 c. £5
Berlin, 27 t. 16 2 q. 467
Ronneley, 10 13 2 176
Havana, 3 16 2 63
Mayence, 1 6 2 21
Montreal, 4 2 70
Bremen, 5 82
E. London, 1 2 16
Baltimore, 43 4 1 649
Sydney, 1 15
Antwerp, 134 cks. 1 17 2 257
Natal, 2 6 34
Pt. Natal, 40 kgs. 42

Bromine Cyanogen—
Coquimbo, 2 q. £9

Calcium Chloride—
New York, 10 t. £19
Sydney, 10 22
Montreal, 10 23

Caustic Potash—
Boston, 1 t. 1 c. £27
New York, 10 16

Caustic Soda—
Alexandria, 15 dms.
Amsterdam, 170
Antwerp, 252
Barcelona, 136
Boston, 20 brls.
B. Ayres, 50
Calcutta, 40
Callao, 30
Cardenas, 11
Cartagena, 26 pks.
Catania, 20 kgs.
Caxias, 5
Chicago, 50
Constantinople, 30
Copenhagen, 15
Dunedin, 18
E. St. Louis, 50 10 brls.
Fremantle, 20
Genoa, 220
Halifax, 29
Hamburg, 319
Hiogo, 52
Johannesburg, 150
Kingston, Ja., 10
Kobe, 50
Konigsberg, 90
Leghorn, 52
Malaga, 20
Malta, 24
Melbourne, 150
Mexico City, 50 cks.
M. Video, 50
Montreal, 25 brls.
N'cstle, N.S.W. 109
N. Orleans, 50
New York, 20 bxs.
Oporto, 45
Penang, 5
Philadelphia, 50
Piræus, 18 6 cs.
Pt. Natal, 19
Rio de Janeiro, 65
Rotterdam, 29
Stettin, 35
Sydney, 138
Tampico, 350
Toronto, 10
Valencia, 25
Valparaiso, 15
Venice, 30
Vera Cruz, 25
Victoria, B.C., 10
Vladivostock, 20

Chemicals (*otherwise undescribed*)
Alexandria, 8 t. 10 c. £45
New York, 7 12 2 q. 270
Gefle, 2 2 3 33
Genoa, 5 82
Montreal, 1 10 25
Danzig, 9 1 8
Antwerp, 2 15 45
Hamburg, 12 18
Adelaide, 10 3
Otago, 1 16
Sydney, 5 10 93
Brisbane, 2 32
Odessa, 2 60
Rio de Janeiro, 9 7 712
Melbourne, 7 cks. 7 4 92
Barcelona, 5 155

China Clay—
Baltimore, 960 cks.
Boston, 610
B. Ayres, 80
Calcutta, 380
Georgetown, 200
Merriton, 150
Montreal, 400 300 bgs.
Philadelphia, 350
Santos, 4

Chrome Soda—
Vera Cruz, 20 kgs.

Coal Products—
Aniline Colours
Calcutta, 3 cs.
Hespeler, 3 brls.
New York, 67 cks. 3 kgs.
Aniline Dyes
Lisbon, 4 cs.
Aniline Oil
Barcelona, 17 cks.
Boston, 5 dms.
Genoa, 20
Aniline Salt
Boston, 40 cs.
Vera Cruz, 40 brls.
Carbolic Acid
B. Ayres, 1 t. 5 c. £40
Barcelona, 1 11 2 q. 103
Sydney, 10 17
Miramichi, 1 dm. 5
Creosote Oil
Newport News, 500 brls.
N. Orleans, 750
Pitch
Sydney, 1 brl.
Tar
Burutu, 6 brls.
Philadelphia, 175
Sulina, 15

Copper Sulphate—
Antwerp, 1 t. 18 c. 3 q. £45
Rotterdam, 1 18 3 45
M. Video, 6 18 2 156
Havre, 3 8 80
Valparaiso, 4 9 1 109
Melbourne, 3 70
Montreal, 10 219
B. Ayres, 19 3 3 477
Lisbon, 1 19 3 48
N'castle, N.S.W., 2 51

Cream of Tartar—
Miramichi, 8 c. £5
Vera Cruz, 1 t. 5 22

Disinfectants—
Sierra Leone, 1 ck. £6
Para, 7 c. 12
Vera Cruz, 2 t. 2 13
Malta, 6 cs. 27

Glycerine—
Hamburg, 25 t. 17 c. 39. £1,430
Bilbao, 6 12 245
New York, 12 4 268
Bombay, 19 3 11
Montreal, 12 9 485
Barcelona, 9 3 23
Newport News, 50 10 1 1,400
Rotterdam, 24 3 2 980
Hiogo, 20 dms. —
Yokohama, 50 cs. —

Lactic Acid—
Vera Cruz, 5 c. £10

Magnesia—
Alexandria, 3 tcs. 5 cs.
Para, 5

Paris, 82
Vera Cruz, 2

Magnesium Chlorate—
Oporto, 4 t. 2 c. £

Manure—
Teneriffe, 7 t. 19 c. 1 q £3

Oxalic Acid—
Lisbon, 2 cks. £

Paint—
Antofagasta, 12 cs.
Antwerp, 40 ck
Calcutta, 4
Cape Town, 10 kgs.
Coquimbo, 36
Conakry, 4 dm
Guayaquil, 50
Hamburg, 36 pks
Isles de Los, 400 2 cks
Johannesburg, 2 2
Lagos, 200
Madeira, 5
Manaos, 9
Maranham, 5
Matanzas, 2
M. Video, 12 50
Nassau. 3
Pernambuco, 150 3
Pt. Said, 125
Rosario, 16
St. John's, Nfd. 199 2
St. Thomas, Ont., 42 pks
San Juan, 200
Tongku, 50
Trieste, 16 cks.
Valparaiso, 50 brls 25 dms.
Vera Cruz, 50
Yokohama, 2 cs. 240

Painters' Colours—
Bahia, 5 pks.
Bombay, 1,045
Boston, 140 bgs.
Constantinople, 637 kgs. 5 cs. 3 bls.
Lagos, 50
Lisbon, 100 bgs 1 20 cks.
Malta, 27
M. Video, 45
Oporto, 23 kgs.
Piræus, 14
Philadelphia, 100 brls.
Ponce, 4
Sagua la Grande, { 4 / 1 cs.
Santos, 1
Sydney, N.S.W. 160 4 2 bls.
Tangiers, 8 pks.
Valparaiso, 20 50

Paraffin Wax—
Constantinople, 4
Rio de Janeiro, 6
Venice, 20 bgs.

Phosphorus—
B. Ayres, 11 c. £10
Demerara, 16 1
Hiogo, 35 cs. 20
Montreal, 3 14
Ponce, 1 6
Shanghai 18 47

Phosphorus (Amorph.)—
Caracas, 2 cs. £16
Hiogo, 85 93
Rio de Janeiro, 6 73

Potash—
Bombay, 5 c. 2 q. £10

Potassium Bichromate—
Smyrna, 5 cks. £70

Potassium Chlorate—
Gothenburg, 4 t. 18 c. £
Gutujewsky, 21
Havana, 13
Hiogo, 22 5
Konigsberg, 12
New York, 12 10
Oporto. 1
Paranagua, 12 4
Rio de Janeiro, 4 18
Sydney, 5
San Juan, 4 cks.
Tampico, 5

Potassium Cyanide—
Cuidad Bolivar, 1 t. 2 c. £128

Potassium Prussiate—
Genoa, 3 t. 18 c. 1 q. £278

Salammoniac—
Beyrout, 1 t. 10 c. £
E. St Louis, 2 2
Oporto, 1 brl.
Rotterdam, 1
Smyrna, 12 c.
Trieste, 1 1 3 q.

Salt—
Akassa, 549 t. 10 c.
Antwerp, 2,500
Baltimore, 147
Benin, 20
Boston, 315
Burutu, 501 8
Conakry, 48 18
Ghent, 140
Iceland, 77 6
Kingston, 10
Lagos, 50
Manaos, 700 bgs.
Melbourne, 9 t.
Monrovia, 7 10
Montreal, 14
N. Orleans, 175
Orebak, 150 motons.
Para, 1,052 bgs.
Pt. Natal, 112
Rangoon, 625 t.
Rotterdam, 188
St. Petersburg, 250
Sapeli, 400 bgs.
Shediac, 11,843 t.
Sherbro, 10 bgs.
Sierra Leone, 100 t.
Warri, 150 bgs.

Salt Cake—
Baltimore, 130 t. 11 c. £742

Saltpetre—
Maranham, 9 c. £9

Sheep Dip—
B. Ayres, 22 t. 10 c. £577
M. Video, 8 18 2 q. 25
Natal, 7 13
Orebak, 13 cs. 17
Punta Arenas, 20 cks. 110

Soap—
Akassa, 169 pks.
Algoa Bay, { 200 bxs. / 150 cs.
Amboina, 150
Anamaboe, 51
Antwerp, 100
Baltimore, 25
Barbadoes, 400
Bombay, 558
Brussels, 50 150
B. Ayres, 30
Calcutta, 27 250 bdls.
Callao 3
C. C. Castle, 25 1
Cape Town, 800 10
Carbonear. 91
Christiania, 100 100
Colombo, 125 5
Constantinople, 28 kgs.
Curacao, 438 bxs.
Demerara, 500 20
Durban, 174 15
E. London, 813 2
Genoa, 170
Gibraltar, 329 40
Gd. Bassa, 25
Gothenburg, 300
Guayaquil, 51
Halifax, 294
Hamburg, 50 dms.
Hong Kong, 120 kgs 1,78 bxs. 500
Honolulu, 305
Iquitos, 50
Johannesburg, 20
Lagos, 550
Madras, 10
Malta, 6
Manaos, 160
Mannheim, 926
Mauritius, 1,530
Montreal, 1,300
Moulmein, 1
New York, 38
Old Calabar, 1,612
Opobo, 600
Ottawa, 400
Para, 600 1
Patras, 10 pks.
Pt. Elizabeth, 51
Pt. Natal, 1,850 125
Pt. Said, 47
Punta Arenas, 67
Rangoon, 202 858
Rotterdam, 423 373 dms.
St. Kitt's, 100
St. John, N.B., 299
St. John's, N'fd, 100
St. Thomas, 1,025
San Juan, 100
Santiago, 25
Sapeli 200
Sokondi, 100
Sherbro, 220
Sierra Leone, 700 1
Smyrna, 20
Sydney, 16 tnks.
Teneriffe, 1,574
Toronto, 601
Trinidad, 100 1
Ternate, 500
Valparaiso, 101
Victoria, B. C., 501
Winnipeg, 450

Soda—
Barcelona, 15 cks.
Bombay, 7

Soda Ash—
Baltimore, 800 bgs.
Barcelona, 110 cks.
Boston, 112 26 tcs. 26
Brisbane, 67
B. Ayres, 438
Cadiz, 60
Calcutta, 250 kgs. 138
Christiania, 300 bgs.
Colon, 10
Dunedin, 30
Genoa, 400
Ghent, 568
Gothenburg, 250 48
Hamburg, 22
Hiogo, 174
Johannesburg, 80 kgs.
Lagos, 10 brls.
Leghorn, 20
Libau, 100 bgs.
Madras, 5
Malta, 50
Malmo, 240
Melbourne, 240
Maranham, 50
M. Video, 50
Naples, 32
New York, 150 5 tcs. 14
Piræus, 15
Philadelphia, 85
Pt. Natal, 40 kgs.
Rio de Janeiro, 400 dms.
Rotterdam, 534 bgs.
Smyrna, 200 75 brls.
Sydney, 166 cks.
Tampico, 100
Toronto, 1,376
Venice, 300
Vera Cruz, 40
Yokohama, 150

Soda Crystals—
Bombay, 500 kgs.
Boston, 840 brls.
B. Ayres, 100 cks.
Calcutta, 7
Gibraltar, 70 30
Johannesburg, 40
Malta, 30
M. Video, 100
Montreal, 200
Palermo, 8
Piræus, 20
Philadelphia, 280
St. John's, N'fd., 20
Stamboul, 20
Smyrna, 140
Valparaiso, 200

Sodium Arseniate—
Boston, 10 cks.

Sodium Bicarbonate—
Adelaide, 100 kgs.
Alexandria, 45
Alicante, 75
Antwerp, 75 20 cks.
Barcelona, 300
Bilbao, 25 brls.
Bombay, { 20 bgs. / 160 kgs.
Brisbane, 80
Calcutta, 500
Cape Town, 8 bgs.
Catania, 40 kgs.
Christiania, 20
Cienfuegos, 10
Colombo, 4
Dunedin, 100
Durban, 20 bgs.
Fremantle, 60 kgs.
Halifax, 25
Hamburg, 85
Hobart, 21
Leghorn, 20
Lisbon, 20
Madras, 90
Malta, 14 12 dms.
Marseilles, 180 4 cks.
Melbourne, 470
Monterey, 2
M. Video, 91
Montreal, 50 bgs.
Naples, 100 kgs.
Odessa, 100 dms.
Patras, 20
Pt. Natal, 10
Reunion, 10
Rotterdam, 50
St. Petersburg, 110
Singapore, 19 cks.
Sydney, 150
Syra, 27
Vera Cruz, 20
Victoria, B. C., 20
Wellington, 20
Yokohama, 300

Sodium Chlorate—
Boston, 250 kgs.
Gutujewsky, 50

Sodium Prussiate—
Philadelphia, 26 cks.

Sodium Silicate—
Bilbao, 35 brls.
Lyttelton, 15
Sydney, 15

Starch—
Salonica, 7 cs.

Sulphur—
Boston, 85 t. 1 c. £363
Gothenburg, 75 2 321
Maracaibo, 1 7
Pernambuco, 1 12 11

Sulphuric Acid—
Ceara, 6 c. £3
Pernambuco, 13 9
La Union, 23 glns. 7 cs. 2

Superphosphates—
Lisbon, 2,425 t. £5,227
Stettin, 2,280 3,734
Venice, 98 10 c. 200

Varnish—
New York, 4 cks.
St. John's, N'fd., 1 brl

White Lead—
Altata, 10 cks.
Pernambuco, 160 kgs.
Pt. Natal, 143

Zinc Chloride—
Philadelphia, 15 t. 16 c. 3 q. £242

MANCHESTER.

Week ending August 30th.

Ammonium Carbide—
Tunis, 1 brl.

Calcium Carbide—
Sydney, 12 cs.

Caoutchouc—
Adelaide, 2 cs.

Chalk—
France, 21 cs.

Coal Products—
Beta Naphthol
Belgium, 1 kg.
Carbolic Acid
France, { 2 cks. 6 cs. / 50 brls.
Naphtha
Melbourne, 50 dms.
Sydney, 100
Pitch
Antwerp, 202 t. 12 c.
Belgium, 105 10
Marseilles, 600
Toluol
Germany, 12 dms.

Copperas—
Alexandria, 110 brls.
Beyrout, 25

Dyestuffs—
Extract
France, 4 cks.

Gamma Acid—
Germany, { 1 bg. / 9 cks.

Glue—
Germany, 10 cks.

Glycerine—
France, 20 dms.

Linseed Oil—
Beyrout, 29 brls.
Bombay, 3 dms.
Mersyne, 2

Paint—
Beyrout, { 60 kgs. 2 cs. 50 dms. / 14 brls.
Mersyne, { 10 / 2 cks.

Potassium Chlorate—
Tunis, 4 kgs.

Red Lead—
Beyrout, 10 kgs.
Mersyne, 1 ck.

Salammoniac—
Alexandria, 20 cks.
Beyrout, 10
Mersyne, 8

Soap—
Alexandria, 50 bxs.
Malta, 11 cs.

Soda Ash—
Lattakia, 50 brls.
Sodium Bicarbonate—
Tunis, 20 kgs.
Sodium Naphthionate—
Switzerland, 30 cks.
Sodium Silicate—
Sfax, 40 brls.
Tallow—
Bombay, 50 brls.
Tannic Acid—
France, 2 cks.
Tin Crystals—
France, 2 cks.
Turpentine—
Alexandria, 5 brls.
Mersyne, 1 dm.
Venetian Red—
Alexandria, 73 cks.
Wood Pulp—
Brisbane, 24 cs.

HULL.

Week ending August 26th.

Alkali—
Drontheim, 200 bgs.
Ammonium Sulphate—
Palermo, 290 bgs.
Stettin, 100
Venice, 105
Bleaching Powder—
Riga, 20 cks.
Trieste, 2
Caustic Soda—
Danzig, 35 dms.
Riga, 50
Venice, 100
Chemicals (*otherwise undescribed*)
Amsterdam, 66 cks. 20 bls.
Bari, 30 pks.
Christiania, 1,292 slos.
Copenhagen, 11 7 cs.
Gothenburg, 1
Hamburg, 5 206
Harlingen, 50
Konigsberg, 10
Rotterdam, 4 72
St. Petersburg, 300
Stettin, 8 13 pks.
Venice, 7 crbys.
Coal Products—
Pitch
Antwerp, 80 t. 5 c.
Tar
Abo, 100 brls.
Antwerp, 4 cks. 3 cs.
Bremen, 2
Copenhagen, 3
Dunkirk, 22
Hamburg, 3
Cottonseed Oil—
Amsterdam, 7 t. 14 c.
Christiania, 3
Copenhagen, 3 8
Gothenburg, 5
Hamburg, 1 18
Harlingen, 5 1
Konigsberg, 2 12
Rotterdam, 20 10
Rouen, 2 11
Stettin, 10 3
Guano—
Dunkirk, 100 t.
Linseed Oil—
Amsterdam, 2 t. 13 c.
Christiania, 3 7
Christiansund, 4 18
Copenhagen, 7
Drontheim, 1 19
Fiume, 5
Ghent, 7
Hamburg, 24 7
Rotterdam, 12
Stavanger, 2 9
Stockholm, 10
Manure—
Riga, 1,640 bgs.
Paint—
Antwerp, 10 cks.
Gothenburg, 1 cs.
Painters' Colours—
Abo, 10 cks.
Amsterdam, 1 4 cs.
Antwerp, { 191 4 pks. 65 dms.
Bari, 14
Bremen, 14
Christiania, { 30 1 56 pks. 32 dms.
Copenhagen, 23
Danzig, { 20 1
Drontheim, 7 180
Dunkirk, { 1 1
Gothenburg, 3 1 60 pks.
Hamburg, 10 1 48
New York, 42 40
Rotterdam, 10 1 22
Rouen, 10
Stavanger, 8
Stettin, 8 1
Stockholm, 1
Phosphates—
Riga, 3,120 bgs.
Soap—
Drontheim, 20 cs.
Gothenburg, 1
Starch—
Abo, 2 cks.
Superphosphates—
Aarhuus, 1,150 t.
Tallow—
Amsterdam, 13 cks.
Hamburg, 15 3 cs.
Varnish—
Antwerp, 7 cks.
Danzig, 2 cs.
Hamburg, 3
Stavanger, 1
Stettin, 1
Stockholm, 2

GLASGOW.

Week ending August 31st.

Ammonium Carbonate—
Rotterdam, £15
Ammonium Sulphate—
Barbadoes, 57 t. 8 c.
Barcelona, 147 16
Demerara, 239 18 1 q.
Hamburg, 50 11
Nantes, 10 1 1
Valencia, 120 13 2
Boracic Acid—
Adelaide, £27 10s.
Melbourne, 239
Borax—
Amsterdam, £21
Melbourne, 53
Rotterdam, 34
Castor Oil—
Adelaide, £35 16s.
Coal Products—
Aniline Dye
Calcutta, £114
Creosote Oil
Bordeaux, £2,791
Vancouver, 12
Creosote Salt
Bordeaux, £250
Pitch
Canada, £128
Christiania, 20
Tar
Canada, £50
St. Petersburg, 1,106 brls.
Dyestuffs—
Extract
Ballarat, £84
Barcelona, 155
Belgium, 27 10s.
Melbourne, 39 14
Fustic Extract
Ballarat, £21
Farina—
Rio de Janeiro, £110
Iodine—
Rotterdam, £3,100
Lead Nitrate—
Rotterdam, £7
Linseed Oil—
Canada, 48 t. 10 c.
Havana, 2 2
Pietermaritzburg, 2
Rio de Janeiro, 2 3 q.
Trinidad, 1 12 1
Litharge—
Rotterdam, £17
Stockholm, 22
Logwood—
Portugal, £74
Magnesium Sulphate—
Adelaide, £22 12s.
Canada, 38 13
Rio de Janeiro, 28
Manganese (Recovered)—
Genoa, £20
Manure—
Sydney, £20
Oxalic Acid—
Stockholm, £70
Paint—
Havana, £134
Pietermaritzburg, 70 19s.
Trinidad, 6 15
Painters' Colours—
Algoa Bay, £44
Gibraltar, 22
Melbourne, 53
Sydney, 173
Paraffin Wax—
Christiania, 20 cks.
Demerara, £23
Genoa, 270
Italy, 673
Rotterdam, 40
Stockholm, 930
Potassium Bichromate—
Adelaide, 1 t. 6 c.
Antwerp, £68
Melbourne, 89
Rotterdam, 283
Potassium Cyanide—
Melbourne, £676
Sydney, 273
U.S.A., 443
Potassium Prussiate—
New York, £185
Red Lead—
Rotterdam, £120
Sheep Dip—
Melbourne, £300
Punta Arenas, 120
Soap—
Trinidad, 5 t.
Valparaiso, 1 3 c.
Sodium Bichromate—
Montreal, 5 t. 2 c. 2 q.
Quebec, 5 1 2
Starch—
Rio de Janeiro, £82
Rotterdam, 14
Superphosphates—
Adelaide, 4 t.
Tallow—
Rotterdam, 1 t. 5 c.
Varnish—
Adelaide, £24 19s.
Sydney, 40
White and Red Lead—
Calcutta, £28

TYNE.

Week ending August 26th.

Alkali—
Amsterdam, 7 t. 15 c. 2 q.
Christiania, 6 14
Rotterdam, 1 14 2
Ammonia—
Aarhuus, 10 c.
Antimony—
Hamburg, 12 t.
Riga, 4
Barium Binoxide—
Hamburg, 7 t. 15 c. 3 q.
Barium Carbonate—
Hamburg, 150 t.
Nykjobing, 10 c.
Bleaching Powder—
Aarhuus, 1 t. 3 c. 1 q.
Amsterdam, 15 4 2
Bergen, 16 2
Christiania, 51 16
Copenhagen, 2 1
Drontheim, 9 17
Hamburg, 34 18 1
Nykjobing, 9 18 1
Oporto, 5 2
Riga, 5 13 2
Rotterdam, 31 10 3
Caustic Soda—
Abo, 16 t. 19 c. 2 q.
Antwerp, 19 14 2
Christiania, 13 1
Copenhagen, 12 8 3
Seville, 69 13 3
Farina—
Hamburg, 1 q.
Glauber Salts—
Helsingfors, 460 t.
Litharge—
Amsterdam, 12 c.
Hamburg, 1 t. 2 1 q.
Riga, 15 7 3
Magnesia—
Antwerp, 3 c.
Hamburg, 3 t. 12 1 q.
Paint—
Abo, 2 c.
Antwerp, 2 t. 5
Copenhagen, 12
Rotterdam, 2
Paraffin Wax—
Bjorneborg, 4 t. 1 q.
Red Lead—
Aarhuus, 1 t. 6 c. 1 q.
Abo, 7
Amsterdam, 1 19
Copenhagen, 6
Hamburg, 12 13 1
Oporto, 1 12 2
Riga, 2 14 1
Rotterdam, 3 5 1
Saltpetre—
Aarhuus, 5 t.
Soap—
Hamburg, 1 t. 9 c.
Soda—
Abo, 9 t. 10 c.
Amsterdam, 20 16 1 q.
Christiania, 10 6
Copenhagen, 49 4 1
Hamburg, 2
Rotterdam, 39 5 3
Soda Ash—
Christiania, 5 t. 2 c. 2 q.
Sodium Hyposulphite—
Copenhagen, 2 t. 3 c.
Ghent, 2
Nykjobing, 1
Sodium Sulphate—
Moss, 250 t.
Superphosphates—
Frederikshavn, 700 t.
Tallow—
Hamburg, 112 hhds.
Varnish—
Hamburg, 1 bx.
Pomaron, 1 c. 1 q.
White Lead—
Abo, 7 c. 2 q.

GOOLE.

Week ending August 23rd.

Chemicals (*otherwise undescribed*)
Hamburg, { 4 cs. 42 pks. 5 dms.
Coal Products (*otherwise undes.*)—
Amsterdam, 23 cks.
Antwerp, 2
Boulogne, 61
Hamburg, 3
Coal Products—
Pitch
Antwerp, 97 t.
Dyestuffs (*otherwise undescribed*)
Amsterdam, 1 ck.
Boulogne, 3
Ghent, 2
Hamburg, 15
Manure—
Ghent, 38 bgs.
Romeby, 3,800
Painters' Colours—
Boulogne, 16 cks.
Ghent, 5 2 cs. 2 dms.
Hamburg, 8 3

GRIMSBY.

Week ending August 26th.

Chemicals (*otherwise undescribed*)
Dieppe, 6 pks.
Hamburg, 5
Coal Products (*otherwise undes.*)—
Dieppe, 135 cks. 5 pks.
Hamburg, 1 cs.
Coal Products—
Benzol
Dieppe, 25 cks.
Colours—
Dieppe, 1 kg.
Dyestuffs (*otherwise undescribed*)
Gefle, 2 cks.
Manure—
Esbjerg, 2,640 bgs.
Hamburg, 667
Painters' Colours—
Antwerp, 2 cks. 3 cs.

PRICES CURRENT.

WEDNESDAY, Sept. 6, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	18	12	6
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	12	2	6
,, ,, (grey) Hull ,,	12	0	0
Aniline Oil (pure) per lb.	0	0	4¾
Aniline Salt ,, ,,	0	0	4¼
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/- to 60/-		
Bleaching Powder, 35 % nett ,,	4	15	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 30% A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	8¼
,, 50/90 ,,	0	0	10½
Carbolic Acid (crude 60°) ,,	0	2	1
,, (crystallised 40°) per lb.	0	0	7½
,, (liquid 95/97%) per gallon	0	1	1
Creosote (ordinary) ,,	0	0	3¼
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	11	0
Solvent Naphtha, 90% at 160° per gallon	0	1	2½
Copper per ton	76	18	9
,, Sulphate ,,	23	15	0
,, Oxide (copper scales) ,,	68	0	0
Glycerine (crude) 80% ,,	28	10	0
,, (distilled S.G. 1260°) ,,	45	0	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	16	7	6
,, Litharge Flake (ex ship) ,,	17	10	0
,, Acetate (white ,,) ,,	21	15	0
,, ,, (brown ,,) ,,	18	0	0
,, Carbonate (white lead) pure ,,	22	0	0
,, Nitrate ,,	22	0	0
Lime, Acetate (brown) (ex ship) per ton	5	0	0
,, ,, (grey) (ex ship) ,,	7	15	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	18	10	0
Linseed ,,	23	0	0
Stearine ,,	27	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	16	10	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % per ton	23	10	0
,, ,, ,, 75/80 % ,,	18	10	0
,, Potash Hydrate Liquid 50 % ,,	12	0	0
,, Nitrate (refined) ,,	19	15	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	8
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,, ,,	8	15	0
Silver (metal) per oz.	0	2	3 5/16
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	2	6
,, ,, (Soda Crystals) ,, ,,	2	12	6
,, Acetate (ex-ship) ,,	13	7	6
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	8	15	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	8	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	7	0	0
,, ,, (pure liquor 90° Tw.) ,, ,,	4	2	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	11	10	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	6
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	7	6
,, Prussiate per lb.	0	0	6
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	5	0
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide (crystals) ,,	6	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4½
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	7	5	0
,, (Roll Brimstone) ,,	6	0	0
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	26	10	0
Tin Crystals per lb.	0	0	10½
,, English Ingots per ton	144	10	0
Zinc (Spelter) ,,	24	0	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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THE RESPONSIBILITIES OF PUBLIC ANALYSTS.

AN important case was before the public at the end of last week—a case which was important in two ways. We place the rights of vendors of food-stuffs first, and the reputation of the analytical profession second, and will deal with them in this order.

It is of the greatest importance that traders should not be victimised by the mistakes of those who sit, as it were, in judgment upon them. To have to answer a summons in the Police Court, brought under the Food and Drugs Act, does a trader no good, and even if he wins his case and obtains ample damages, it often happens that as far as the general public is concerned, the proceedings leave a lasting impression to the effect that he has been prosecuted for adulteration, while the final result of the case is lost sight of entirely.

When viewed in this light, the strictures made by Mr. Yates (and which are reported elsewhere in this issue) appear quite justifiable; but when looked at from the analyst's aspect, it is regrettable that Mr. Yates evinced such an excessively summary spirit in disposing of the case, even though he was sitting in a court of summary jurisdiction.

Briefly, this was the position:—Mr. Williams, the county analyst, said a sample of flour contained a considerable amount of alum. Mr. Thomson, for the defence, said there was no alum in it. Somerset House was referred to, and Mr. Thomson's negative test confirmed. Permission to send up to Somerset House a portion of the sample Mr. Williams had actually tested was refused, and the case was brought to a close. In giving the decision of the Bench, Mr. Yates said the Somerset House analysis "clearly showed that the County analyst had made a mistake." It did not. It only clearly showed that a mistake had been made by someone. Who was that someone; and was Mr. Williams responsible for his actions? Mr. Williams asked leave to make a personal explanation, but Mr. Yates refused to hear anything except evidence on oath. Mr. Williams did not proffer any such evidence, and, in consequence, no one knows what Mr. Williams's explanation was, or its value.

This may suit the public and the magistrates, but it will not do for analysts as a body, that the stigma placed upon them by Mr. Yates's very pointed remarks anent assistants, and the fact of Mr. Williams having differed recently with Somerset House in a ginger case, shall be allowed to remain uneffaced.

We do not say whether Mr. Williams is right or wrong. No one is in a position to say that at present—except Mr. Williams. The case is clearly one for the Institute of Chemistry, whose sole province it is (to quote the terms of the Charter of Incorporation) (1) "To promote the better education . . . of analysts, &c.; (2) to examine candidates, and grant certificates of competency; and (3) to elevate the profession of Consulting and Analytical Chemistry . . . *by requiring on the part of its members the observance of*

strict rules in regard to professional conduct," and it is therefore the imperative duty of the Censors of the Institute to invite, or otherwise obtain, from Mr. Williams the explanation which Mr. Yates refused to hear. If, as we can readily comprehend, there has been confusion of samples, the fact should be brought to the notice of Mr. Yates and the public, in order that the analytical profession may be exonerated, and the real offender duly stigmatised. It would also be as well to point out to magistrates, generally, that the proper use of assistants is legitimate. At Somerset House, which is the magistrates' analytical Mecca, the testing is done by assistants—qualified assistants; while even the magistrates themselves are but humble legal assistants, some of whom, at times, appear to be indifferently qualified.

If the explanation afforded by Mr. Williams is not satisfactory, it is the bounden duty of the Censors towards the remaining 854 Fellows of the Institute, that they exercise their censorship in administering such admonitory exhortation and advice as behoves the case.

If, as we more than half expect, the matter is taken up by the Censors, and they report that Mr. Williams gave a satisfactory explanation, it is absolutely necessary that the import of his explanation should be made known to the Fellows of the Institute, in order that they may safeguard themselves against getting, at some future time, into similar straits. It should also be made known to the public through the same channels as the results of the Institute Examinations are published, so that the impression which Mr. Yates's remarks will make on brother magistrates may be counteracted. If this is not done, analysts all over the country will have to be subject to ponderous magisterial attempts at wit, having their origin in statements which have no foundation of fact.

AUTOMATIC GLASS BLOWING.

AN American syndicate has opened a glass manufactory in St. Helens, where the old system of blowing is supplanted by an automatic blowing machine capable of turning out about 500 tumblers an hour, or 5,000 tumblers a day, lamp chimneys at the rate of 3,000 and 4,000 per day, and larger articles in proportion. The machine is served by four men and seven boys, which is a slightly larger number of hands than is usually employed at one furnace under the old way of making tumblers by hand. Under the old conditions a gang would turn out only about 400 tumblers a day, against 5,000 by the machine process. The machine is a most ingenious arrangement of glass casting moulds and blow pipes, which rotate at a speed of ten tumblers a minute, but the great and all-important means of rapid manufacture is the supply of compressed air by which the machine is worked.

TRADE UNION APPROVAL.

The committee of the Flint Glass Makers' Society (Birmingham District) were recently invited to St. Helens to see the automatic machine for blowing glass, and they desire to make it known to the public. The secretary writes to the *Birmingham Post*, saying that "having seen as practical workmen what it can do, we can assure the public that it will meet a want that has long been felt in the trade for resisting foreign competition. The committee were witnesses that it produced as many as 2,000 tumblers in five hours, and about the same number of chimneys. It was invented by Mike Owens, an old glass hand, of Toledo. We consider this a grand invention, and one that will make glass to suit the million, and bring the cost within the reach of the most humble cottager. My experience is that foreigners work cheaper than we do, but cannot produce anything so good as this machine. We are delighted that Birmingham is the place where the new machine is to start operations. We know it will be a great boon to the trade and give employment to many."

Nitrate Statistics.—The Permanent Nitrate Committee's public statistical circular for September shows:—Total exports to Europe, August, quintals 1,443,000; loading for Europe, September 1, quintals 2,700,000; imports Europe, August, tons 98,700; deliveries Europe, Aug., tons 49,340; visible supply Europe, Sept. 1, stocks and afloat, tons 366,070.

TREATING WASTE PRODUCTS IN GERMANY.

WITH reference to our article on this subject in a recent issue (No. 641), our German correspondent writes:—"In the last number of the *Chemical Trade Journal*, you have an article on the Trebertrochnung Gesellschaft at Cassel, in which you call this company one of the most successful and interesting ventures. It is quite true that the Trebertrochnung Gesellschaft have paid very high dividends during the last few years, but the opinions as to the future prospects of the Company are very divided, and long controversies on this subject have been going on in the German press for some years past. I enclose two copies of the *Frankfurter Zeitung*, containing the last balance sheet and the last yearly report of the Cassel Company, from which you will see that they are heavily engaged in wood distillation works in all parts of Europe. The rentability of all these works will depend on the success of the Bergmann patent, and you will see from the enclosed circular (with which Germany has been inundated during the last few days) what a number of highly respectable firms, who are in the trade, think of this patent. The shares of the Trebertrochnung are quoted at a premium of about 250 per cent, but as far as I am concerned, I should not like to have them at par, even if I had to hold them but for a short time. The company appear to be in continual want of money, and are just now trying to obtain a quotation for their shares, which to a great extent appear to be in their own or their friends' hands at the Stock Exchanges of Brussels and Munich, and of their new shares at Berlin. If I am rightly informed the British public will soon be approached by the Cassel Company."

RIBBLE JOINT COMMITTEE.

AT a meeting of the Ribble Joint Committee in the County Hall, Preston, on Monday, a deputation attended from the Fulwood Urban District Council to show cause why proceedings should not be taken against them for offences against the Rivers Pollution Prevention Act, 1876. The Clerk read letters complaining of the Savick Brook, and urging the Committee to compel the Fulwood Authority to bring about a remedy.—Mr. Arnold Brierley, clerk to the Fulwood Council, explained the Board's position and the steps they had taken. A Local Government Board inquiry had been held in February into their proposal to borrow money for the purpose of carrying out works of sewage disposal. The first communication after that inquiry was in May, when the Local Government Board objected to the site the Fulwood Authority proposed, and suggested the adoption of land elsewhere. Immediately that communication was received the Council visited the various sites, and their negotiations had elicited that two of the sites were out of the question. They had endeavoured to come to terms with the owner of the site suggested by the Local Government Board. They had, however, received no satisfactory reply up to the present, and the Council inferred that it was the intention of the owner to make them apply for compulsory powers to acquire the land. At the last meeting of the Council a resolution was passed authorising them to adopt this course. In the meantime the authority was doing all in its power to mitigate the nuisance.—Several members suggested that the employment of tanks might do much to remedy the evil.—The case was adjourned for one month.

A deputation from the Joint Sewerage Board of Clayton-le-Moors and Great Harwood also attended before the Committee to show cause why proceedings should not be taken against them. On behalf of the deputation it was stated that the authorities had spent £18,000., which had been borrowed for sewerage purposes some time ago, and they now proposed to apply for further powers to lay out an additional number of beds.—One or two members of the Committee considered it would be a waste of money to lay out land for irrigation purposes, and advised the adoption of filters as the superior and, in the long run, the more economical method.—The Joint Sewerage Board were allowed two months, and were ordered to report on the steps taken to secure the additional borrowing powers. They were advised to inquire into the best system of sewage disposal adopted by other local authorities.

On the motion of Mr. H. T. Parke it was resolved that circulars should be issued to local authorities and manufacturers inviting them to inform the inspector in case of a breakdown of machinery which would affect the effluent issuing from their works.—A numerously signed petition was received from the residents at Cotton Tree, Colne, complaining of the polluted condition of Cotton Tree Beck. The stench was said to be unbearable, and life in the neighbourhood was said to be intolerable. It was ordered that steps should be taken with a view to remedying the nuisance. The cases against manufacturers were adjourned.

Personal.—The new general works manager at St. Helens for the United Alkali Company, in place of the late Mr. Wylde, is Mr. Martin J. Hammill, who has only returned to this country after a long sojourn in Bay City, Mich., where he has been superintending the erection of the big chemical works of the United Alkali Company.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Improvements in Ammonia Absorption Machines, and the Like. H. Brecknell. 17,367. August 28.

Preparation of Petroleum Oils for Illuminating Purposes by Means of Ozone. G. W. Gatehouse. 17,371. August 28.

Mills for Reducing Coals used in Charging Coke Ovens. M. Klein. 17,408. August 28.

Purified Gum in Scales or Flakes. W. R. Morris. 17,558. August 30.

Artificial Stone. A. Fullarton. 17,597. August 31.

Manufacture of Cement. W. Seidel. 17,608. August 31.

Recovery of Waste Rubber. C. O. Weber and I. Frankenburg. 17,612. August 31.

Fractional Scrubbing of Gases, &c. W. Young, S. Glover, and T. Glover. 17,620. August 31.

Apparatus for Effecting a more Complete Combustion of the Gases given off in Smelting Furnaces. A. Spies. 17,659 August 31.

A Chemical Plant Food and Insecticide. J. E. Jefferies. 17,682. September 1.

Improvements in Oil Purifiers. F. Treu. 17,685. September 1.

Apparatus for Evaporating Brine. E. J. Duff and The United Alkali Co., Ltd. 17,689. September 1.

Multiple Effect Brine Evaporating Apparatus. E. J. Duff and The United Alkali Co., Ltd. 17,690. September 1

Multiple Effect Apparatus for Use in Evaporating Brine. E. J. Duff and The United Alkali Co, Ltd. 17,691. September 1.

Extracting Saccharification Worts in Brewing. E. de Meulemeester. 17,720. September 1.

Separating Gases and Vapours from Mixtures. K. Kubierschky. 17,780 September 2.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

A Method of Producing Calcium Carbide. A. J. Boult, 111, Hatton Garden, London (communicated by W. S. Horry, Niagara, New York). Eng. Pat. 14,761. July 11, 1899.

The furnace is vertical, with a sliding bottom, which is capable of being raised or lowered by suitable gearing. The top of the furnace is open. The electrodes are placed vertically in the furnace, adjacent to each other. The charge of raw materials is introduced through the open top so as to surround the poles. In due course a pool of molten carbide forms. The superimposed charge retains much of the heat from the electric arc, and keeps the carbide in the molten state until it spreads beyond the field of reduction. By moving the adjustable bottom successive portions of the charge are subjected to the action of the arc. There are three figures, which show different ways of controlling the movement of the bottom of the furnace.

Improvements in Distributing Apparatus for Sewage Tanks, and other Purposes. M. J. Adams, Park Lane Sanitary Works, Leeds. Eng. Pat. 19,063. September 7, 1898.

A drum is mounted horizontally on a shaft, so as to overhang two tanks. It is provided with two outlets near the ends, which look different ways. The liquid to be distributed is fed into the drum through an opening in the centre of one end, and is discharged from the exit which is looking down into one of the tanks, the outlet at the other end being over the second tank, but looking upwards. When the tank is full the overflow operates a float, which causes the drum to revolve, bringing the second opening over the second tank. The discharge pipes in the tanks are sealed with caps, so that they cannot act until the air in the cap is released. This is done by an eccentric on the drum shaft, which opens an air valve and allows the discharge pipe to act and empty the tank. There are two figures.

Improvements in Apparatus for the Separation and Recovery of Valuable Vapours. J. R. Whiting Stamford, Connecticut, and W. A. Lawrence, of Waterville, New York. Eng. Pat. 7,612. April 11, 1899.

The solvents recovered from extraction processes contain air mixed with the hydrocarbon vapour. To remove this the air and vapour are drawn by a pump through a preliminary cooling coil into a refrigerator. The bulk of the vapour is condensed and passes to a store tank, but the air carried forward still contains some vapour. It is, therefore, forced by the pump to the bottom of a tank partially filled with water or other suitable liquid, into which it escapes through a perforated pipe. The water in the vessel is cooled by a refrigerating coil, and as the air and vapour bubble up through it the air rises and escapes, while the vapour is condensed and collects on the surface of the water as a liquid. When the layer of liquid hydrocarbon reaches a certain depth it escapes by an overflow pipe to the store tank. There is one figure.

Improvements in the Manufacture of Yellow Basic Colouring Matters. J. Y. Johnson, 47, Lincoln's Inn Fields (communicated by the Badische Anilin and Soda Fabrik, Ludwigshafen-on-Rhine). Eng. Pat. 21,496. October 12, 1898.

This patent refers to a method of preparing yellow colouring matters resembling phosphines by effecting the condensation of para-amido-benzaldehyde with alphyle-meta-toluylene-diamine in the presence of ferric chloride. As an example of the method of preparation the following is cited :—About 55 parts of phenyl-meta-toluylene-diamine-hydrochlorate are dissolved in 160 parts of hot alcohol, to which is added a mixture of about 24 parts of para-amido-benzaldehyde and 50 parts of crystallised ferric chloride. This is boiled for six hours in a vessel fitted with a reflux condenser. The alcohol is next distilled off and the residue extracted by well stirring with about 2,000 parts of hot water. The solution obtained is filtered and the colouring matter precipitated as a yellow-red powder by the addition of nitric acid to the hot filtrate. The powder is filter-pressed and dried at a temperature between 40° and 50° C.

SELF-RAISING FLOUR.

ANALYTICAL DIFFERENCES.

A case important to both flour dealers and analysts came before Mr. Yates, Q.C., and other magistrates at the County Police Court, Strangeways, Manchester, on Thursday last week. Annie Moffitt, provision dealer, Tamworth-street, Old Trafford, was summoned for selling flour alleged to contain ingredients injurious to health. The defendant was first summoned about three months ago on the certificate of Mr. W. Collingwood Williams, county analyst, which alleged that a pound of self-raising flour purchased at the defendant's shop on May 31, contained 170 grains of alum. When the case was heard, however, Mr. W. Thomson, of Manchester, certified that he had analysed a portion of the same sample of flour and found no alum whatever in it. In face of this conflict of evidence it was agreed to send another portion of the original sample to Somerset House. The result of this was that the authorities there upheld Mr. Thomson's analysis. It was then pointed out on behalf of the prosecution, that self-raising flour was simply flour with a baking powder added, and it was possible that the baking powder might have been put in either at the top or the bottom of the bag, and that the portion submitted to Mr. Williams was the portion containing the baking powder alone. M. Chapman, who appeared in support of the summons, said that having regard to the certificate from Somerset House he did not intend to proceed further with the case. He had evidence in support of the certificate of the County Analyst, but as there was undoubtedly a conflict of expert evidence the defendant was entitled to the benefit of the doubt. Mr. Chorlton, on behalf of the defendant, utterly denied that the flour contained any alum. He contended that the prosecution had been founded on an error. The defendant had been put to great expense, and he asked for reasonable costs on her behalf. Mr. Yates said that the certificate from Somerset House clearly showed that the County Analyst had made a mistake. Matter sent for analysis by the County Analyst was not bound to be analysed by himself, but could be done by assistants, and in this probably lay the whole mischief. The summons would be dismissed, and the bench allowed the defendant ten guineas costs.

WEARDALE IRON AND COAL COMPANY.—It is reported that Sir Christopher Furness is about to purchase the ironworks and collieries in the county of Durham belonging to the Weardale Iron and Coal Company. Mr. J. S. Barwick, Lord Londonderry's principal representative at Sunderland, is said to be associated with Sir Christopher Furness in the purchase. Sir Christopher Furness, in reply to a telegram, states that he is unable to supply any information about the matter at present. Mr. Barwick stated that an offer had been made, but matters were still only in course of negotiation.

WITHDRAWAL OF BRITISH FIRMS FROM THE PARIS EXHIBITION.—As a mark of the disapproval of the decision in the Dreyfus case, several British manufacturers have withdrawn from the Paris Exhibition. Among various firms, Messrs. Wallace Brothers, of 57, Gracechurch-street, London, who have been invited to participate in the exhibition, have decided not to do so; the proprietors of the *Graphic*, pending the settlement of affairs in Paris, have countermanded an order for the erection of the extensive printing and electric driving machinery which was to have formed part of their exhibit at the Paris Exhibition; and the Vinolia Company have notified the secretary of the Royal Commission for the Paris Exhibition that they desire to be excused from having an exhibit, as arranged, owing to the verdict of the Rennes court-martial.

MINERAL PRODUCTION OF THE U.S.A.

WE have just received the returns of the United States Geological Survey of the mineral production of the United States. We add the figures for 1897 by way of comparison: -

Products.		1898. Quantity.	1898. Value	1897. Quantity.	1897. Value.
METALLIC.					
Pig Iron	long tons	11,773,934	$116,557,000	9,652,680	$95,122,299
Silver, coining value	troy ounces	54,438,000	70,384.485	53,860,000	69,637,172
Gold, coining value	do.	3,118,398	64,463,000	2,774,935	57,363,000
Copper, value at New York City	pounds	526,375,591	61,849,132	494,078,274	54,080,180
Lead, value at New York City	short tons	231,269	17,345,175	212,000	14,885,728
Zinc, value at New York City	do.	115,319	10,385,910	99,980	8,498,300
Quicksilver, value at San Francisco	flasks	31,092	1,188,627	26,648	993,445
Aluminium, value at Pittsburg	pounds	5,200,000	1,716,000	4,000,000	1,500 000
Antimony, value at San Francisco	short tons	1,120	184,050	756	109,655
Nickel, value at Philadelphia	pounds	13,411	4 694	23.707	7,823
Tin	do.	(*none*)	...	(*none*)	...
Platinum, value (crude) at San Francisco	troy ounces	225	1 913	150	900
Total value of metallic products		...	$344,079,986	...	$302,198 502
NONMETALLIC (Value at Mines).					
Bituminous coal	short tons	166,592,023	132.586.313	147.609,985	$119,567,224
Pennsylvania anthracite	long tons	47,663,075	75,414,537	46,974,714	79,301,954
Stone	...	...	36,607,264	..	34,667,772
Petroleum	barrels	55,354.233	44,183,359	60,568,081	40,929,6 1
Natural gas	...	...	14,750,000	.	13,826,422
Brick clay	...	..	9,000,000	...	8,000,000
Clay (all other than brick)	long tons	...	1,000,000	...	1,000,000
Cement	barrels	11,968,708	9,781,501	10,989,463	8,178 283
Mineral waters	gallons sold	28,853.464	8,051,833	22,362,282	4,505.620
Phosphate rock	long tons	1.308,885	3,453,460	1,039,345	2,673,202
Salt	barrels	17,612,634	6,212,554	15 973,202	4.920,020
Limestone for iron flux	long tons	5,275,819	2,638,000	4,247,688	2,124,000
Zinc White	short tons	33,000	2,310,000	25,000	1,750,000
Gypsum	do.	291,638	755,280	288,982	755,864
Borax	pounds	16,000,000	1,120,000	16,000,000	1,080.000
Mineral paints	short tons	58,850	694,856	60,913	795,793
Grindstones	...	...	489,769	...	368,058
Fibrous talc	short tons	54,356	411,430	57,009	396,936
Asphaltum	do.	76,337	675,649	75,945	664 632
Soapstone	do.	22,231	287.112	21,923	365,629
Precious stones	...	...	160,920	...	130,675
Pyrites	long tons	190,150	577 731	143,201	391,541
Corundum and Emery	short tons	4,064	275,064	2,165	106,574
Oilstones, etc.	pounds	...	180,738	...	149,970
Garnet for abrasive purposes	short tons	2,967	86,850	2,554	80,853
Mica	pounds	129,520 Sheet, lbs.	103,534	82.676 Sheet, lbs.	80,774
		3.999 Scrap, tons.	27,564	740 Scrap, tons.	14,452
Barytes (crude)	long tons	31,306	108,339	26,042	58,295
Bromine	pounds	486,979	126,614	487,149	129 094
Fluorspar	short tons	7,675	63,050	5,062	37,159
Feldspar	long tons	12,000	32,395	11,175	43,100
Manganese ore	do.	15,957	129,185	11,108	95,505
Flint	do.	19,130	42,670	11,952	26,227
Monazite	pounds	230.776	12,462	44,000	1,980
Graphite	do.	Crystalline, lbs. 2,360,000 Amorphous, tons 890	75,200	Crystalline, lbs. 1,254,402 Amorphous, tons. 1,108	54,277
Bauxite	long tons	25.149	75,437	20,590	57,652
Sulphur	short tons	1,200	32,960	2,275	45,590
Fuller's earth	do.	14,860	106,500	17,113	112,272
Marls	do.	60,000	30,000	60,000	30.000
Infusorial earth and Tripoli	do.	2,733	16,691	3,8 3	22,835
Pumice stone	do.	600	13,200	158	...
Millstones	...	...	25,934	...	2:,932
Chromic iron ore	long tons	(*none*)	(*none*)	(*none*)	(*none*)
Cobalt oxide	pounds	7,848	11.772	19,520	31,232
Magnesite	short tons	1,263	19,075	1,143	13,671
Asbestos	do.	605	10,300	580	6,450
Rutile	pounds	140	700	100	350
Ozocerite, refined	pounds	(*none*)	(*none*)	(*none*)	(*none*)
Total value of nonmetallic mineral products		...	$352,767,802	...	$327,617,480
Total value of metallic products		..	344,079,986	...	302,198,502
Estimated value of mineral products unspecified		...	1,000,000	...	1,000,000
Grand Total		...	$697,847,788	..	$630,815,982

Reports of Companies.

STEEL COMPANY OF SCOTLAND, LTD.

The report of this company for the year ended 13th July, 1899, is as follows:—Your directors, in presenting the balance-sheet and profit and loss account for the year ended 13th July last, are gratified that these are again of a satisfactory character. The past year has been unprecedented in the history of the company for the volume of business done, the output of finished steel exceeding that of any previous year by 12,500 tons, and the value amounting to considerably over £1,000,000. The value of finished products was higher than previous years, but the higher prices of raw materials, such as fuel, pig iron, and ore, together with the increase of wages paid to workmen, neutralised to a large extent the enhanced prices obtained for finished products. It is therefore gratifying that, notwithstanding these increases, the year's work shows a gross profit of £18,473. more than that of the previous year. There has been expended on additions to and reconstruction of plant the sum of £34,441. 9s. 5d. which, following the custom of recent years, has been charged to the revenue account. This amount, which is higher than last year, is due in great measure to the replacing of boilers and to the reconstruction of the foundry at Hallside. Every department of the works has been fully employed, with the exception of the tyre mill department at Blochairn, which was stopped for some months owing to a regrettable strike. The works and plant have been maintained in a satisfactory condition. The stocks of materials and tools have been carefully taken at low valuations. During the year the trustees for the debenture-holders have redeemed £2,700. of the A debenture stock, which is now reduced by £13,540. since i s issue. The company has paid £292. 5s. for premium and expenses on stock, which sum has been debited to profit and loss account. Manufacturing accounts show a credit of £109,961. 10s. 7d., and after deducting rates, taxes, salaries, etc., together with £13.255. 15s. 4d. of interest, the profit for the year amounts to £81,022. 3s. 7d., which, added to the balance of £3,310. 6s. 8d. brought forward from last year, makes a total of £84,332 10s. 3d. from which there has to be deducted £34.441. 9s. 5d., the amount expended on improvements and additions to plant already referred to. In conformity with the policy explained to the shareholders, your directors propose to add £20,000. to the reserve fund; and they also deem it prudent to set aside £1,000. to provide for claims arising under the Workmen's Compensation Act. From the balance of £28,891. 0s. 1cd. they recommend that £26,762. 8s. be appropriated to the payment of a dividend on the paid-up capital of the company at the rate of 6 per cent. per annum, free of income tax. payable on 21st September, and that the balance of £2,128. 12s. 10d. be carried forward to the present year. Your directors invited Mr. D. Y. Cassels to accept the seat at the board rendered vacant by the death of Mr. Alley, and they recommend that their action be confirmed by the shareholders. They also recommend the re-election of Mr James Couper, whose term of office expires at this meeting.

PRICE'S PATENT CANDLE CO, LTD.

The directors, in a statement of profit and loss account submitted to an extraordinary general meeting last week, state that the balance of profit in hand shown by the accounts laid before the general meeting in March was £61,448., from which has been deducted dividend of 17s 6d. per share paid March 11th, £32,812., reserve fund £10,000., and on account of depreciation on fixed properties £12,500, leaving a balance of £6.136 The profit of the six months to June 30th last (less income tax) was £44,811., making an available sum of £50,947. A dividend was declared of 18s. per share, leaving in hand to be carried forward £17,197.

The Chairman said the profit in 1898 was larger than the profit in 1897, and in the early part of the present year the profits showed a continued increase, attributable to the exceptionally low price of the raw materials used in candle-making and partly to economies resulting from improvements in the processes of candle manufacture. They, however, lost the benefit of the low prices of raw material, but the volume of trade increased so considerably that the Company made the largest profit in the early part of this year that had ever been yielded in the history of the Company. The manufacturing profit for the first half of last year was £35,000.; that day they were able to show a profit of over £40,000., and a disposable sum of £57,000. They also carried forward rather more than half the amount they proposed to pay in dividend. The question of the amount of dividend to be recommended was fully discussed by the directors, and as they were themselves very large shareholders there was a great temptation to pay the higher dividend, which would have been the biggest for the first six months of any year since 1860. That would, no doubt, have made the directors very popular with the shareholders. The policy of the board was one of prudence. The Company had a large export trade, and a considerable portion of that trade was with South Africa, where political affairs were in a very troubled state. Important issues might be arrived at that very day, which might seriously interfere with trade at the Cape, and Price's Candle Company, together with other companies, might suffer. Another point was that if they paid a dividend of £1. a share now and they could not do so next year, it might lead to disappointment and the lowering of the price of their shares.

SADLER AND CO., LTD.

The annual report of this Company shows a profit on the year's business of £14,080. 15s. 2d.; adding to this the balance brought forward from last year, it gives a total of £18,129. 1s. 5d., which it is proposed to apply as follows: Interest on debentures, prepaid shares, and for income-tax, £4,592 6s 5d.; renewals and maintenance in lieu of depreciation, £4.144 2s. 1d.; Tar Products Sales Committee, Limited, £6,025. 14s. 5d.; directors' and auditors' fees, £850; and balance to be carried forward, £2,516. 18s 6d. The report adds that a decided change for the better has taken place in the market prices of most of the numerous products of the Company. The volume of their trade has grown remarkably, and continues to expand, and the outlook for the current year is encouraging. The lamented death of Mr Wm. Houson, a director of the company since its formation, was a serious loss. The vacancy on the board had been filled by Mr. R H Wilson, chemical manufacturer, Yarm. The director retiring by rotation is Sir Theodore Fry, Bart., whose name will be submitted for re-election at the annual meeting.

BRITISH DYEWOOD AND CHEMICAL CO, LTD.

The directors, in their first report, state that the profits, &c., earned during the eighteen months have been £44.809., and after providing for interest on purchase price paid to vendors, proportion of preliminary expenses, bad debts, and depreciation, there remains a balance of £24,130. From this there falls to be deducted the interim dividend already paid on the preference shares to 31st December, 1898, £7,756., leaving £16,374. This the directors recommended should be dealt with as follows:—In payment of half year's dividend to 30th June, 1899, on the preference shares at the rate of 5 per cent. per annum, £8,458.; to reserve fund, £1,000; in payment of a dividend on the ordinary shares for the period from 20th May, 1898, to 30th June, 1899, at the rate of 2 per cent. per annum, £4,894.; leaving a balance to be carried forward of £2,021.

BIRMINGHAM BACTERIAL SEWAGE SCHEME.

THE great difficulty experienced by the Birmingham Drainage Board of late years has been the somewhat confined area of land at their disposal. They have, however, adopted from time to time various methods with a view to the improved treatment of the sewage, and to obtain a purer effluent. To secure this latter object, it may be mentioned that they are at the present time devoting 500 acres of land to intermittent filter beds to the exclusion of all cropping. With a view also of bringing their information up to the most recent date, the board have authorised an expenditure of £1,000. in the construction of experimental beds for the bacterial treatment, which has recently excited a good deal of interest. These works are now in course of construction at Saltley. In initiating these beds the board have decided to ascertain whether this more recent method of treatment will be applicable to the sludge as well as the tank effluent. Twelve months, however, must necessarily elapse before any value can be placed on the experiments.

COST OF THE UNDERTAKING.

The present farm and works have cost something like £450,000., and the amount sanctioned by the Act for the extensions is £400,000. So that when the farm is completed the entire capital cost will have been something approaching a million pounds sterling. The expenses of the board are a great and increasing item After allowing for the income derived from crops raised on the farm, the amount of the board's precepts made to cover the expenditure for the current year is rather over £58,000, of which more than £41 000 falls on the city of Birmingham. Of this, nearly half represents interest and repayment of loans on capital account, involved by the purchase of land and outlay on permanent works.

THE GERMAN EAST INDIAN TRADE.—It is interesting to note that the trade of Germany with the East Indies in 1898 was very flourishing, and that the cause of the increased consumption of German goods was the working of the "Merchandise Marks Act" In 1889 German trade in British East India was represented by 26,500,000 marks; it now, in 1898, amounts to 50,000,000 marks. The principal exports are sugar (in loaves), hosiery, alizarine, chemicals, and aniline dyes.

CALCIUM CARBIDE IN THE TRANSVAAL.

THE latest "concession," or barrier against British trade, erected in the Transvaal, relates to the manufacture of calcium carbide. The only patent taken out in the Transvaal for this business was by a Frenchman named Bullier, who thus secured the sole right to manufacture or import calcium carbide. Bullier did not find the business a large one, and he sold his Transvaal rights to a firm of chemical manufacturers, Messrs. Read Holliday and Sons, Ltd., of Huddersfield, who paid him £1,000. for the same. In due course Messrs. Read Holliday and Sons, Ltd., formed a subsidiary company—the Read Holliday Acetylene Company, Ltd., for the special purpose of developing the acetylene gas industry, which latter company duly became the holders of the Transvaal patent rights originally granted to Bullier. The transfer of the patent was duly registered in the Transvaal patent office, the translation being changed from Dutch-French to Dutch-English, the holders being now English; and not alone was this change made in the Transvaal office, but Messrs. Holliday and Sons took out an additional patent for an acetylene gas generator. These patents are strictly in order, and their validity is not disputed by the Transvaal Government. The Read Holliday Acetylene Company, Ltd. therefore justly considered themselves the sole owners of calcium carbide rights in the South African Republic.

Oom Paul, however, had other opinions evidently, seeing that he has simply ignored these rights, and conferred a "concession" to a firm named Tranmer and Co., who hold no patent whatever for the manufacture of calcium carbide, granting them the sole right to make and sell carbide in the Transvaal.

The Company placed the protection of their interests in the hands of Messrs. Ashurst, Morris, Crisp and Co., who in turn instructed their local agents in Johannesburg, Messrs. Hudson, Hutchinson and Mullins, to take such steps as they deemed desirable, with the result that they at length received a letter from the Government saying:—"In answer to your last letter of the 5th inst., I beg to inform you, that if your Clients, being the holders of the Letters Patent, are of opinion that Tranmer and Co. infringe the rights granted to them, they can institute an action against those parties in a competent court."

The patent owners will no doubt have to go through the farce of obtaining a legal verdict, either for or against, and to waste much money in the process.

The situation, however, reaches a climax, when Messrs. Tranmer cooly offer to sell the concession to the Holliday Company for £15,000. in hard cash. If anyone is entitled to sell these rights for £15,000. it is surely the Holliday Company. For the benefit of readers, we give the following details relating to—

THE CALCIUM CARBIDE CONCESSION.

1. The above concession has been procured direct from the Transvaal Government, and dated December 14th, 1898, for a period of 30 years, with a right of renewal for a further term of 30 years.

2. In regard to the manufacture of this chemical for the Transvaal, there is abundance of coal or coke of suitable quality which can be obtained at current rates, and lime can be obtained in any quantity.

3. In regard to power, there are numerous places suitable for the erection of a factory. Water power can be obtained and coal mines bought at a low price which will be advantageous for cheap production.

4. The progress of the acetylene business has been rapid within the last nine months, and some large installations have been executed.

5. The introduction of acetylene gas has been favourably received, and where but three tons per month were imported three months ago, 15 tons per month now pass the Customs, realising about £50. per ton. Calcium carbide is sold in small quantities at the rate of £100. per ton. Most of the largest installations are not yet commenced. There are numerous hotels, houses, and institutions that exist in towns where the illuminant is only "paraffin." Therefore, one can easily judge that the future of this concession is most hopeful.

6. Assuming that one cubic foot of carbide represents 660 cubic feet acetylene gas on a basis of £40. per ton, with a lighting power 15 times greater than coal gas, the economical conditions that present themselves for the progress of the acetylene luminant may be readily seen.

7. It is estimated, after a calculation reckoning everything at a maximum, that the cost of production (including wear and tear, etc.), can be turned out at £12. per ton.

8. There are four large installations now in progress, and the Netherlands Railway Company are at the present moment experimenting with a view of adopting acetylene at all their stations and where electric light is not at present available. It is scarcely necessary to say that there are numerous enquiries from many who are taking an interest in this mode of lighting.

9. There is only one gas "coal" company in the State charging its consumers 20s. per 1,000 cubic feet.

10. Eighteen months have been granted in which to commence the erection of the factory.

11. Ten per cent. of the profits go to the Transvaal Government after the factory has been producing for a period of three years, they undertaking to place a protective duty.

12. Terms: £10,000. cash and £10,000. £1. fully-paid shares in a company to be formed with a capital of £100,000 with a working capital of not less than £25,000 The concessioners to retain one seat on the Board. If purchased outright the sum of £15,000. cash.

13. An option can be arranged on payment of £1,000., such sum to be deducted from the purchase consideration.

SALT TRADE OF THE UNITED KINGDOM.

THE official returns of the salt trade were issued on Tuesday, and show that during August 83,717 tons were dealt with by all the salt-producing districts of the United Kingdom. This is a decrease of 2,538, and reduces the year's gain over the eight months of 1898 to 3,742 tons. Thanks to an improved export of 6,000 tons and an increase in the coastwise shipments, the Liverpool total has risen from 36,663 tons to 43,589. The chief factors in the improvement are demands for an additional 2,556 tons from the United States, 2,314 tons from British North America, and nearly 2,000 tons from Africa and Asia. The Manchester Ship Canal, Runcorn, and Weston have not shown up so well, a falling off of 4,758 tons, almost entirely confined to the coastwise trade, being apparent. Middlesbrough, Stockton, and district have suffered more grievously, and their loss amounts to 9,284 tons. This is due to the fact that last year 8,352 tons were sent to Asia and 2,475 to Finland, whereas this year there has been no demand whatever from either. Gloucester has maintained a normal trade. Fleetwood has benefited to the extent of 3,864 tons, and Carrickfergus 806 tons. So far this year 702,830 tons of salt have been dealt with throughout the kingdom.

EAST INDIA INDIGO.

FOR the next quarterly sales, to commence in London on October 9th, Messrs. Millward and Co. report a total entry of 3,750 chests has been declared, as against 6,100 chests in October, 1898. The details are as follows:—

	1899 Chests		1898. Chests
Bengal and Oude	2,550	...	4,466
Kurpah	650	...	1,104
Madras	180	...	142
Figs, hoody, &c.	370	...	388
Total	3,750	...	6,100

These figures have accentuated the firm position of the London market, and a further large quantity has changed hands during the past week at an advance upon Oude and Bengal of 4d. to 6d. per lb., and upon Kurpah of 3d. to 4d. It seems quite within the range of possibilities that the advance in the forthcoming sales will be even more marked.

Some 154 chests of Java indigo were to be sold by auction in Amsterdam on Tuesday, 12th inst., and the brokers anticipated that they would realise 4d. to 7d. per lb. above valuations.

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for July, 1899. The total shipments were 81,171,542 gallons, compared with 89,982,205 gallons in 1898. The total for the seven months ending July, 1899, were 521,895,086 gallons, against 579,621,100 gallons in the same period of 1898. The details of the shipments are as follows:—

			Gallons.
		CRUDE PETROLEUM.	
Total,	July,	1899	11,771,102
,,	,,	1898	10,782,816
		NAPHTHAS.	
Total,	July,	1899	1,069,408
,,	,,	1898	823,790
		ILLUMINATING.	
Total,	July,	1899	59,874,989
,,	,,	1898	73,325,035
		LUBRICATING AND PARAFFIN.	
Total,	July,	1899	5,109,441
,,	,,	1898	4,424,050
		RESIDUUM.	
Total,	July,	1899	3,346,602
,,	,,	1898	626,514

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for July, 1899, as compared with July, 1898 :—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	20,175	18,378	5,529	4,997
Sweden and Norway	10,090	12,355	2,321	2,073
Germany	14,401	5,097	3,679	1,590
Holland	12,748	6,558	2,677	1,513
France	4,693	3,102	1,791	1,078
Spain and Canaries	16,819	31,960	5,745	10,234
Italy	18,665	18,584	5,773	5,916
United States	60,551	30,628	11,368	6,232
Australasia	19,216	19,438	6,087	5,940
British North America	13,165	7,701	3,547	2,056
Other countries	91,877	116,188	26,592	33,664
Total	282,400	269,989	75,109	75,293

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	61,027	51,583	16,291	11,606
Other countries	30,219	29,797	9,044	8,362
Total	91,246	81,380	25,335	19,968

IMPORTS AND EXPORTS FOR AUGUST.

THE Board of Trade returns for the past month have been more satisfactory. The *imports* of chemicals do not call for comment, but the *exports* of alkali, salt, and manures have improved.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE.

Articles.	Quantities. 1898.	1899.
Margarine ..... Cwt.	72,474	83,144
Copper Ore and Regulus ..... Tons	16,622	22,186
Pyrites ..... ,,	58,202	50,054
Tin ..... Cwt.	25,488	40,122
Alkali ..... ,,	22,812	15,537
Brimstone ..... ,,	48,152	27,536
Dyes, coal tar ..... £.	60,472	63,969
Saltpetre ..... Cwt.	24,144	21,914
Petroleum ..... Gall.	21,764,305	22,665,448
Turpentine ..... Cwt.	94,871	82,815
Guano ..... Tons.	542	3,122
Nitrate of Soda ..... ,,	5,856	9,738
Paraffin Wax ..... Cwt.	70,104	93,699
Rosin ..... ,,	146,213	266,976
Tallow and Stearine ..... ,,	143,474	166,985
Tar ..... Barrels	25,118	17,202
Oil Seed Cake ..... Tons	24,358	30,366
Wood Pulp ..... ,,	38,913	36,328
Borax ..... Cwt.	80	8,048

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

Articles.	Quantities. 1898.	1899.
Alkali ..... Cwt.	271,245	312,086
Cement ..... Tons.	23,765	22,880
Coal and Coke ..... ,,	3,078,525	3,758,781
Copper, all kinds ..... Cwt.	87,304	63,286
Iron and Steel ..... Tons.	294,142	290,212
Chemical Manures ..... ,,	53,122	59,629
Oils, seed ..... ,,	2,838	2,404
Salt ..... ,,	43,571	55,184

THE DOWLAIS STEEL WORKS RE-STARTED.—It is reported from Merthyr Tydfil that Lord and Lady Wimborne have returned to Dowlais. It is rumoured that his Lordship contemplates converting the works and collieries into a limited liability concern, the members of his family to be shareholders. Dowlais steel works were re-started on Wednesday after the stoppage through the drought.

Trade Notes.

THE NEW COMMERCIAL INTELLIGENCE BUREAU.—It is officially stated that arrangements have been made for the opening of the new commercial intelligence bureau in connection with the Board of Trade about the middle of October, but no formal statement of the way in which the new department is to be managed can be given in the absence on their annual leave of the permanent secretary and the chief of the commercial department. Offices have been taken in the neighbourhood of Whitehall for the use of the new bureau, and the *personnel* of the staff has been temporarily decided upon, the appointments only awaiting confirmation.

SOCIETY OF CHEMICAL INDUSTRY: LIVERPOOL SECTION.—At the opening meeting of the Session 1899-1900, the first Hurter memorial lecture will be delivered by Professor G. Lunge, on "Impending changes in the general development of industry, and particularly in the alkali industries." The lecture will be given in the theatre of the Chemical Department, University College, Brownlow-street, Liverpool, on Wednesday, October 4th, at 8 p.m. Invitations for friends may be obtained by forwarding their names and addresses to the Secretary.

BORIC ACID IN BUTTER; CASE DISMISSED.—At the Whitby Police-court, on Tuesday, before Mr. J. H. Corner, and Dr. F. Finley, a well-known local grocer, W. Wilson Hall, was summoned for unlawfully selling 1¼lbs of Danish butter, which was not of the nature, quality and substance demanded. Defendant pleaded not guilty. The public analyst's report showed that the butter contained boric acid. Dr. Tinley said butter should not contain boric acid. Defendant said that it was used as a preservative in hot weather. The Chairman said that in view of the fact that the quantity of boric acid used was not injurious, and probably used for preserving, the case would be dismissed.

THE WAGES IN THE STEEL TRADE.—In response to a demand by the steel smelters for an advance in wages of ten per cent., the Employers' Association, representing Scotland and the north-east district of England, have offered an increase of five per cent., which the workmen's executive have decided to accept. The basic shops in the Midlands district will also, we understand, concede a similar advance. The increased rate will start from the 13th inst. In South Wales the joint committee for fixing standard rates for melting shops and mills have held their first meeting. It was also agreed that the workmen's claim for a 20 per cent. advance in wages should be discussed and definitely decided not later than September 23rd.

BACTERIOLOGIST FOR GLASGOW.—The Health Committee of Glasgow Corporation have considered the report of a sub-committee on the appointment of a Corporation bacteriologist. Two candidates were proposed—Dr. Robert M'Neil Buchanan and Dr. David M'Crorie. The former received ten and the latter eight votes, two members abstaining from voting. Both names will go before the Corporation. Dr. Buchanan made a special study of pathology and bacteriology under Professor Carl Weigert in Frankfort, and under Professor Robert Koch in Berlin. Dr. M'Crorie also studied at Berlin under Dr. Gunthen, the successor to Professor Koch. He qualified in 1891, and since then he has devoted his time specially to bacteriological and pathological work. The salary attached to the position of bacteriologist to the Corporation is £350 a year.

PHOSPHORIC ACID IN THOMAS MEAL.—To avoid the unpleasantness of working with strong hot acids, the following method of bringing Thomas meal into solution is advocated by Mr. C. Aschmann in the "Chemiker Zeitung." A liquid containing 420 grammes of pure nitric acid (sp. gr. 1·2) and 50 grammes of concentrated sulphuric acid per 10 litres is prepared. Five grammes of the sample are agitated with 500 c.c. of the mixture for half an hour in Wagner's apparatus, at a speed of forty to forty-five revolutions per minute. The mass is filtered immediately, allowed to rest for twelve hours for the calcium sulphate to settle; then 50 c.c. are filtered off, treated with 10 c.c. of a solution of 500 grammes of citric acid in 1 litre of water, made just alkaline with ammonia (using a fragment of litmus-paper as indicator), and diluted with 50 c.c. of water. If the liquid remains perfectly clear for twenty minutes, the phosphoric acid is precipitated with Wagner's magnesia mixture, stirred for half an hour, and filtered after one or two hours' standing (longer is not harmful); but if silica falls during the twenty minutes, the nitro-sulphuric acid solution must first be precipitated with Wagner's molybdate. The said solution becomes cloudy after a time, owing to the deposition of free sulphur produced by the action of the nitric acid on the nascent sulphuretted hydrogen, but this is of no importance. Nitro-sulphuric acid dissolves some 90 per cent. of Thomas meal, the liquids filter easily, and the results agree well with the ordinary methods.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are steady, and in rather better request, with 90's at 8d. to 8½d., and 50/90's at 10½d. to 11d. Tar products generally are showing signs of prospective activity. Naphthas are steady, solvent being firm at 1s. 2½d. Carbolic acids are quiet, but prices are steady and unchanged. Pitch is firm at 34s 6d. to 35s. f.o.b. East Coast, and 32s. West. Creosote is steady, and in fairly good request.

Sulphate of ammonia has fallen off considerably in price. Forward business is creating some interest, but makers firmly stand out against the low offers made by buyers. For October-March Beckton quotes £11. 15s. Closing prompt values are:—London, outside makes, £12.; Hull, £12, and Leith £12. to £12. 1s. 3d. Nitrate of soda firm.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade business is active in all branches, with a distinctly improving tone, both on spot and forward transactions. Further advances have been made this week in prices of bleaching powder, soda crystals, alkali and caustic soda, the present quotations now being:—for bleaching powder, £5. 5s, softwoods, f.o.r. makers' works, and considerable business done thereat for next year; alkali, 58% £4. 2s. 6d. per ton in bags; soda crystals, bags, £3. per ton; caustic soda, 77% £9 15s., 74% £9. 5s, 70% £8. 10s., 60% £7. 10s. nett per ton, f.o.b. Liverpool; chlorate of potash and soda are still unchanged in value, but somewhat firmer. For sulphate of copper price has advanced to £24. 10s., f.o.b.; sulphur steady at £4 10s. to £4. 12s. 6d. per ton. For fertilisers business continues brisk: nitrate of soda, 7s. 6d. to 7s. 9d. per cwt.; brown acetate of lime is quiet at £4. 17s. 6d. to £5. c.i.f.; grey, £7. 15s. per ton. White sugar of lead still offers at low rates, £21. 10s. to £21. 15s., c.i.f.; nitrate of lead firm at £22. per ton. Potash, caustic and carbonate, nave further advanced in price. White powdered arsenic in better request at £18. 15s. f.o.r. Garston, best brands. Green copperas is in good general demand, and better prices are obtainable. Sulphocyanides rather quiet. Yellow prussiate of potash scarce for prompt delivery, and price dearer at 8d. per lb.; prussiate of soda, 5⅞d. per lb.; bichromates unchanged. In aniline oil and salt there are no alterations in value. Carbolic acids are firm. In glycerine price of crude is higher. Borax is steady in price, but in abundant supply. Tin crystals are firm at the advanced prices.

REPORT ON MANURE MATERIAL.

There has been a marked absence of activity in the market, sellers on the one hand having contracts to ship against, and buyers on the other hand having covered the bulk of their requirements for the coming season.

Quotations for mineral phosphates are unchanged. Raisers of Florida, Algerian, and South Carolina rocks are very firm, notwithstanding absence of buying, but Tennessee rock is being rather pressed, and quotations would probably admit of some reduction for good lines to satisfactory ports.

East Indian bone meal offers at £5. per ton, ex quay, for shipment, and it is reported that under this price has been accepted.

Nitrate of soda, owing to arrivals, is somewhat easier on spot, and fine quality could now be had at 7s. 9d. per cwt.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is only offered in small quantities at full prices, with the result that very few sales have been made. Olive is moving fairly well, but the scarcity and high prices naturally stand in the way of a large business. Linseed is firm at 23s. per cwt. for Liverpool makes in export casks. Cottonseed is well held by sellers at 18s. to 18s. 6d. per cwt. for Liverpool refined. Castor oil is firm, and in satisfactory demand, with good seconds Calcutta at 3d. (sellers) while first pressure French is reported sold at 2⅞d. per lb. Tallow is firm at full prices, with a brisker demand. Resin is steady in all grades, common being quoted 4s per cwt.; medium, 4s. 3d. to 5s. 6d.; and fine, 6s. 6d. to 9s. 6d. Spirits of turpentine firmer at 35s. 6d. per cwt. for spot lots. Petroleum favours sellers, with American at 6⅞d. to 8¼d. Russian refined quotations are too variable to specify.

CAKES.—The market for all descriptions of linseed continues firm in tone at recent extreme rates, and a fair consumptive business has been concluded in American Western on the spot at £7. to £7. 5s., but the small supplies of Bombay keep business in limited dimensions at £7. 5s. to £7. 10s., while the stocks of River Plate here are in second hands, and are very well held for £7. 7s. 6d. per ton. Russian still quite nominal for want of stock. Liverpool makes are quoted £7. 15s. to £8. 10s. per ton, according to brand, and a fair amount of business has been effected thereat. Good to choice brands of American decorticated cottonseed are firm, but without alteration in value at £5. 15s. to £6. 2s. 6d., according to quality, with a good business doing on this basis, but Liverpool makes are rather quiet, though without alteration in value at £6. 5s. to £6. 10s per ton. Fair sales have been concluded in Liverpool undecorticated makes at £5. 3s. 9d. to £5. 7s. 6d. per ton and home crushers continue firm thereat. There is not much business passing in spot parcels of Egyptian, but the market remains firm, and there are no sellers offering under £4. 17s. 6d. per ton.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s. 9d; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron firm: Scotch warrants closed at 69s. 11d.; Middlesbrough, 67s. 2d. cash; and hematite, 74s. 8d. Copper quiet: Chili bars, G.O B.'s and G.M.B.'s, closed at £76 16s. 3d. to £77. 1s. 3d. cash; and £77. 1s. 3d. to £77. 6s. 3d. three months. Tin firm; Straits closed at £147. 10s to £148 cash; and £146. 17s 6d. to £147. 7s. 6d. three months; Australian, £148.; English ingots, £150. Lead steady: Spanish, £15 2s. 6d. to £15. 5s.; English, £15. 10s. Silesian spelter, ordinary, £23. 5s. to £23. 7s. 6d. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 12s. 6d.; seconds hands, £8. 12s. *Copper Shares* steady: Cape, 4 to 4⅛; Copiapo, 3 11/16 to 3 12/16; Libiola, 1¾ to 2; Mason & Barry, 3⅜ to 3⅝; Rio Tinto, 46 9/16 to 46 11/16; Tharsis, 7⅞ to 8⅛.

GLASGOW, Wednesday.—Market firm, and a good business. Scotch done at 69s. 9d. to 70s. 1d. cash; also at 70s., 69s. 11d., and 70s. 5d. month; buyers, 70s. cash; sellers, 70s. 0½d. Cleveland done at 67s 6d. month; buyers, 67s 2d. cash; sellers, 67s. 5d. Cumberland hematite done at 74s. 4½d. to 74s. 10d. cash; also at 74s. 9d, 74s. 9½d., 74s. 7d., 75s. 2d., and 75s. 1d. month; buyers, 74s. 9d cash; sellers, ½d. more.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The positions held by oils are firm all round, showing a slight advance upon prices recorded a week ago. The imports here to date against the same time a year ago:—Linseed, 343,720 qrs. against 238,541 qrs.; rapeseed, 76,516 qrs. against 54,783 qrs.; cottonseed, 98,726 tons against 131,052 tons; oilcake, 13,356 tons against 9,537 tons; olive oil, 3,100 tuns against 4,362 tuns; tar, 9,313 brls. against 2,554 brls. Linseed oil is firm, being quoted 21s. 4½d. to 21s. 6d. per cwt., naked, spot; 21s. month, 20s. 1½d. October-December, 19s. 6d. Jan April; boiled and refined £1. to £1. 10s. per ton extra. Exports for the week—36 tons:—4 Belgium, 23 Germany, 8 Norway, and 1 Turkey. Refined cotton oil steady: 16s. 6d. naked, spot, 16s. 1½d. September-October, 15s. 1½d. November-April; crude ditto, 15s. 1½d., spot, naked; casks £1. and ordinary barrels £1.10s. per ton extra, whilst the exports have been 50 tons—5 Belgium, 4 Denmark, 4 Egypt, 8 France, 5 Germany, 10 Holland, 6 Norway, 8 Sweden. Castor oil, extracted here: Cold drawn pharmaceutical 29s. per cwt., in barrels; 3⅜d. per lb., in cases; firsts—26s. 6d. in barrels, 3¾d per lb. in cases; seconds—25s 6d in barrels, 3d. per lb. in cases. Turpentine 34s. 6d. to 35s. Resins in fair request, 4s. 4½d. for B/C grades; D, 4s. 5d.; E, 4s. 6d.; F, 4s. 7d.; to W/G, 8s. 6d. and W/W, 9s. 2d. Olive oil, Candia, £33. per tun; green oil, £33. Olive oil soap £16. to £18. per ton. Oleines £18 to £21. per ton. Cod oil £16. to £19 per ton. Tallow 25s. 9d. per cwt.

CAKES.—All feeding stuffs have experienced a sharp advance. Linseed cakes are dearer, being quoted—95% pure, £8 5s. to £8. 7s. 6d. per ton. Oilcakes (linseed) £7. to £7. 5s.; Russians, £7. 15s. to £8.; Americans, none. Cotton cakes steady: best makes £5. 10s. to £5. 12s. 6d.; seconds £5. 2s 6d. to £5. 5s; decorticated, none. Rape cakes: Black Sea, £4. 7s. 6d. to £4. 12s. 6d per ton.

PAINTS.—In fair request, both white and red leads continue to rule at advanced prices, and varnishes, owing to high prices ruling for turpentine, continue dearer. Ordinary colours in oil from £10. per ton. Dry colours (mineral) from £3 10s. Poisonous powder sheep dip from £3. per case, for export.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

Towards the middle of last week the f.o.b. Leith quotation for sulphate of ammonia gave way rather badly, sinking to £12. prompt delivery. At this figure a considerable bulk of stuff changed hands, with the effect that makers felt themselves warranted in holding for rather more. This checked activity, but several sales have been done at the partially recovered value. There is nothing doing in forward business. General chemicals have continued in more than ordinary good keeping, and higher prices have in some cases been obtainable. Manufacture is still affected by high temperatures, but not to the same extent. Mineral oils and paraffins are all in healthy condition, with the exception, perhaps, of paraffin candles, prices of which are regarded as too low. A rise is looked for.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s basis, nett, Tyne: soda ash, £4. 2s 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £8. 15s., 70/72° £8. 60/62° £7., and cream, 60/62° £7., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltkcake, 25s; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2¾d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s 9d.; sulphate of ammonia, £12. 1s. 3d. prompt, f.o b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £23. 15s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft, 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb.; paraffin spirit (naphtha), 10d. to 11d. per gallon; paraffin oil (burning), No. 1., 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5 5s., 885°, £5. 10s. to £6., and 890/895°, £6. 5s to £6 10s. Week's imports of sugar at Greenock were 540 packages beet unrefined, and 157,859 mats cane unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

The chemical trade is rather firmer and there are some slight advances in price. Soda crystals are now quoted at £2 17s. 6d. per ton, gross weight, locally. Caustic soda, 70%, £8. 10s., and 76/77%, £9. 5s. per ton. Sulphur is steady at £4. 15s. per ton.

Bleaching powder, softs, £6. per ton, f.o.b. nett; do., hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. per ton, nett; do, 50%, £4. 2s. 6d. per ton, nett; do., 52%, £4. 5s per ton, nett; alkali, 36%, £3. 12s. 6d. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 5s per ton, nett; do., 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do., 100° Tw., £3. per ton, nett; do., 140° Tw., £3 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—There is a steady market for South Durham salt at from 9s. to 9s. 6d. per ton.

COALS.—The coal trade is without much change. Steam coal is rather weaker. Coke is firm and in demand at 24s. to 25s per ton, f.o.b. To-day's prices are: Best Northumbrian steam, 12s. to 12s. 6d. per ton; second qualities, 11s. to 11s. 6d. per ton; small steam, 6s 6d to 7s per ton; gas coals, 10s. to 11s. 6d. per ton; coke, 24s. to 25s per ton.

New Companies.

Crankshaws, Ltd.—CAPITAL £1,000. in £1. shares. This company has been formed to acquire the business carried on at 8, Burnley-road, Accrington, Lancashire, under the style or firm of T. Shackleton, and to carry on the business of chemists, druggists, perfumers, oil and colour merchants, chemical manufacturers, etc. Registered office, 8, Burnley-street, Accrington, Lancashire.

London and Hamburg Sulphide Ore Syndicate, Ltd.—CAPITAL £5,000. in £500. shares. This company has been formed to refine and treat ores and metalliferous and mineral substances, and to carry on any chemical, metallurgical, or other business. The number of directors is not to be less than two nor more than five; the first are H. Pape and H. Meyerstein; qualification, £500.; remuneration as fixed by the company.

Permanent Colour Co., Ltd.—CAPITAL £5,000. in £1. shares. This company has been formed to acquire the business now carried on as The Permanent Colour Company, to adopt an agreement with R. Larchin, and F. C. Lingard, and to carry on the business of metal merchants, manufacturers of and dealers in metals, alloys, and refuse thereof, white lead, tea lead, oxides of metal, petroleum, chemicals, oils, paints, varnishes, etc. The number of directors is not to be less than two nor more than five.

Lomas Gelatine Works, Ltd.—CAPITAL £5,480. in 450 £12. ordinary shares and 80 £1. deferred shares. This company has been formed to acquire and work Thomas Lomas' process for making gelatine, and to carry on the business of gelatine manufacturers, bone boilers, fellmongers, manure and chemical manufacturers, dealers in hides, fat, and other animal products, etc. The number of directors is not to be less than two nor more than five; the first are J. P. Brown and J. Brown (permanent managing directors); special qualification, £1,000; qualification of ordinary directors, £240.

W. R. Earp & Co., Ltd.—CAPITAL £20,000. in £1. shares. This company has been formed to adopt an agreement with W. R. Earp, and to carry on the business of chemical and borax manufacturers, drysalters, oil, soap, and colour makers and merchants, manufacturers of chemical, pharmaceutical, and other preparations, etc. The subscribers to the memorandum of association are:—W. R. Earp, Preston Brook, Warrington, tanner and chemical manufacturer; R. E Earp, Preston Brook, Warrington, analytical chemist; S. M. Leigh, Dingle, Liverpool, schoolmaster; W. Howarth, Toxteth, Liverpool, consular clerk; T. W. McLean, 25, Flaxman-street, Liverpool, clerk; E. Berney, 31, Stuart-road, Liverpool, clerk; C. Dodd, 14, Stuart-road, Birkenhead, clerk. The number of directors is not to be less than two nor more than five; the first are W. R Earp and R. A. Earp (managing director); remuneration of Rowland A. Earp, £450. per annum, and 10 per cent. of the nett profits; of W. A. Earp, £350. per annum.

Mersey Oil and Cake Mills Co., Ltd.—CAPITAL £25,000. in £10. shares. This company has been formed to carry on the business of manufacturers, merchants, and exporters of and dealers in all kinds of cake, biscuits, flour, meal, and other foods for cattle, sheep, pigs, poultry, game, and live stock, seed crushers, oil extractors, corn, flour, grain, meal, seed, spice, and condiment manufacturers, etc. The subscribers to the memorandum of association are:—F. H. Gossage, Camp Hill, Woolton, Liverpool, manufacturer; E. F. Gossage, Beechside, Allerton, Liverpool, manufacturer; W. H Tate, Highfield, Woolton, Liverpool, sugar refiner; E. W. Tate, Oakfield, Aigburth, Liverpool, sugar refiner; W. W. Gossage, Abbots Lea, Woolton, Liverpool, manufacturer; J. Faulkner, Rock Villa, Lawton-road, Rainhill, gent.; G. W. Gossage, 12, King's Head-road, N., Birkenhead, manufacturer; R. Mercer, 51, Green Bank-road, Birkenhead, manufacturer. The number of directors is not to be less than two nor more than five; the first are W. W. Gossage, E. F. Gossage, E. W. Tate, G. W. Gossage, and R. Mercer; qualification, £100.; remuneration as fixed by the company.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending September 2nd.

Acetic Acid—

Holland,	80 pks.	Little & Johnston
,,	80	A. & M. Zimmerman
,,	50	R. W. Greeff & Co.

Acetone—

Germany,	6 pks. 5 dms.	T. H. Lee
Holland,	80	Hernu, Peron, & Co.

Alkali—

France,	7 t.	J. Barber & Co
,,	9 8 c.	J. Harrison
Germany,	10	J. Barber & Co.

Alum—

Holland,	171 pks.	J White
,,	45	Netherlands S. B. Co.
Germany,	10	T. H. Lee
,,	100	R. W. Greeff & Co
Belgium,	250	Tough & Henderson

Ammonium Sulphate—

Holland,	250 bgs.	Little & Johnston

Ammonia—

Holland,	£40	H. Lorenz

Arsenic—

Portugal,	52 pks.	Coverley & Westray

Barium—

Germany,	£76	H. Johnson & Sons

Barium Sulphate—

Belgium,	85 pks.	O' Hara & Hoar
Holland,	62	J. L. Lyon & Co.

Barytes—
Holland, 44 pks. Taylor Brs.
,, 40 P. Jantzen
,, 168 W. Harrison & Co.
Belgium, 100 ,,
,, 48 J. L. Lyon & Co.
Germany, 10 Steinhoff, Sons & Co.
,, 100 Soundy & Sons
,, 121 W. Harrison & Co.
,, 38 J. L. Lyon & Co.
,, 237 Burrell & Co.

Bleaching Powder—
Germany, 35 pks. J. M. Steel & Co.
France, 186 ,,

Bones—
Adelaide, 2 t. A. & W. Nesbitt
,, 1 Beresford & Co.

Caoutchouc—
Natal, 1 t. 19 c. Hale & Son
,, 10 Brookes & Green
,, 19 J. T. Rennie, Son, & Co.
Belgium, 2 T. Ronaldson & Co.
W. Indies, 1 Jackson & Till
,, 7 Prop Bull Wf.
Germany, 4 11 L. & I. D. Jt. Co.
Spain, 1 Humphery & Co.
Straits, 16 12 E. Boustead & Co
Holland, 8 5 A. C. Lloyd
Japan, 1 1 J. Swire & Son
Madagascar, 1 Proctor Brs
,, 16 L. & I. D. Jt. Co.
B. Honduras, 2 ,,
Thursday Is., 4 Prop. Bull Wf.
Zanzibar, 15 Clarke & Smith

Carbon—
Holland, £550 Phillipps & Graves

Castor Oil—
France, 45 brls. Mordaunt Brs.
,, 20 cs. L. & I. D. Jt. Co.
Belgium, 30 brls. Humphery & Co.

Caustic Potash—
France, 30 pks. Petri Brs.
Germany, 82 J. M. Steel & Co.

Chemicals *(otherwise undescribed)*
Germany, £113 Argo S. S. Co.
,, 22 H. Lambert
,, 70 L. & I. D. Jt. Co.
,, 12 A. & M. Zimmermann
U. States, 730 S. C. Jones
Holland, 20 H. & G. Dutfield
,, 178 Netherlands S. B. Co.
,, 35 R. W. Greeff & Co.
Belgium, 6 F. C. Devon & Co.
Manila, 5 J. Swire & Sons
France, 15 Girard Brs. & Co.

Citrate of Lime—
Italy, 25 pks. Thames S. T. & L. Co., Ld.

Coal Products—
Carbolic Acid
Germany, 25 pks. J. G. Back
,, 250 J. Owen
Pitch
France, 60 cks. H. Hill & Sons
Tar
N. Russia, 260 brls. Prod. Brokers Co.

Colours—
Germany, 10 pks. Wilson & Co.
Italy, 3 C. Gee & Co.
Holland, 8 cks. Taylor Brs.
,, 3 R. Baelz & Co.
France, 19 J. Flack

Cream of Tartar—
Spain, 6 pks. W. C. Bacon & Co.
,, 5 B. & F. Wf. Co., Ld.
France, 9 ,,
,, 5 W. C. Bacon & Co.
,, 5 F. C. Devon & Co.
,, 5 T. Trapp & Sons
,, 1 G. S. N. Co.
,, 4 Blackmore, Leconte, & Co.
Portugal, 5 B. & F. Wf. Co. Ld.
Italy 45 B. Jacob & Sons

Dried Blood—
S. Russia, 44 t. Cartledge & Batchelor

Dyestuffs—
Aniline
Germany, 1 pk. Escombe Brs. & Co
Argols
Spain, 560 pks. A. Owen
,, 36 Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 26 pks. W. M. Smith & Sons
,, 10 Hendrey & Martin
Extracts
France, 55 pks. L. J. Levenstein & Sons
,, 1 Prop. Hay's Wf.
Holland, 1 Loders & Nucoline, Ld.
Gambier
Straits, 788 pks. Bellamy's Wf., Ld.
,, 257 J. Greig
,, 557 Prop. Hay's Wf.
,, 502 Brown & Elmslie
Indigo
France, 1 cht. L. & I. D. Jt. Co.
Myrabolams
E. Indies, 1,500 pks. W. Pope & Co.
Naphthaline
Germany, 13 pks. Fleming's Oil & Chemical Co.
Saffron
Spain, 1 pk. H. Rubeck
Shumac
Italy, 5,127 pks. J. Kitchin, Ld.
,, 350 A. Frey & Co.
,, 586 Beresford & Co.
Tanners' Bark
Natal, 49 t. Hicks, Nash, & Co.
,, 85 Boutcher, Mortimore, & Co.
,, 173 J. T. Rennie, Son & Co
,, 99 Bullard, King, & Co.
,, 369 A. & W. Nesbitt
,, 20 Flack, Chandler & Co.
W. Australia, 51 ,,
Kingston, 410 Anning & Cobb
Adelaide, 101 J. Greig
,, 30 Vokins & Co., Ld.
,, 180 T. J. & T. Powell
,, 42 A. & W. Nesbitt
,, 995 Roche & Sons
,, 121 Baxter & Hoare
,, 11 Goad, Rigg & Co.
,, 90 Dyster, Nalder, & Co.
S. Australia, 35 G & H. Green
Turmeric
E. Indies, 47 pks. J. P. Alpe & Co.
Valonia
Turkey, 50 t. J. & J. Greenstreet
,, 85 A & W. Nesbitt
,, 10 A. Laming & Co.

Farina—
Germany, 100 pks. Thames S. T. & L. Co., Ld.
,, 100 J. Barber & Co.
,, 35 T. H. Lee
,, 400 R. Bennett & Co.
Belgium, 2 John Cockerill Line

Glucose—
U. States, 1,000 pks. 1,000 c. Perkins & Homer
,, 200 1,254 J. Keiller & Son
,, 150 900 C. Southwell & Co.
,, 150 875 A. E. Piggott
,, 6,000 6,000 E. Thompson & Co.
,, 2,500 2,500 Pickford & Co.
,, 1,000 1,000 J. Spurling
,, 1,650 2,384 Ohlenschlager Brs.
,, 250 250 C. Mangold & Co.
,, 50 296 Union L. Co., Ld.
,, 500 500 Pearce, Pelly, & Co.
,, 350 870 L. Norman & Co., Ld.
,, 12,211 22,031 R. G. Hall & Co.
,, 1,500 1,500 Bellamy's Wf., Ld.
Belgium, 10 20 T. Ronaldson & Co.
France, 400 400 L. Norman & Co., Ld.
Germany, 325 654 Beresford & Co.
,, 1,000 1,000 Perkins & Homer
,, 750 750 C. Barnard

Glue—
Belgium, £250 T. Ronaldson & Co.
,, 700 T. M. Duche & Sons
,, 123 Sawer, Sons, & Co.
,, 275 G. E. Banes
,, 35 Leach & Co.
,, 20 Morrison, Pollexfen, & Co.
Holland, 25 Phillipps & Graves
Germany, 75 L. & I. D. Jt. Co.
,, 36 Argo S. S. Co.
,, 1,200 Deering & Robottom
,, 150 J. Barber & Co.
U. States, 30 Beck & Pollitzer
France, 560 T. M. Duche & Sons
,, 32 Prop. Hay's Wf.
,, 165 Burnett Brs. & Sons

Glycerine—
France, £310 H. Hill & Sons
Holland, 430 J. Barber & Co.

Gutta Percha—
Germany, 11 c. Rosenberg, Loewe, & Co.
Straits, 12 t. Anderson, Weber, & Smith
,, 26 H. W. Jewsbury & Co.
W. Indies, 1 Gillespie Brs. & Co.
Republic of Columbia, 4 10 Royal Mail Steam Pkt. Co.

Iron Bromide—
Germany, 10 pks. A. & M. Zimmermann

Lead Acetate—
Germany, £80 10 pks. F. Boehm
France, 12 F. Smith

Litharge—
Germany, 16 cks. G. Smith & Son

Lithopone—
Holland, 100 pks. Taylor Brs.

Manganese Ore—
Straits, 25 t. Union L. Co., Ld.
Germany, 10 T. H. Lee

Manure—
E. Indies, 330 t. A. Hunter & Co.

Methylic Alcohol—
Germany, 11 dms. W. Iszard
France, 3 Lister & Biggs
,, 2,592 g. E. Catlin

Molasses—
U. States, 900 cks. 5,050 c. J. W. Cook & Co.
,, 100 600 R. G. Hall & Co.
,, 350 2,166 J. Forsey
,, 100 582 Ohlenschlager Brs.

Ochre—
Holland, 44 pks. Phillips & Graves
France, 74 J. Harrison
Spain, 130 J. L. Lefon & Co.
,, 50 Randall, Spence, & Co.

Oxalic Acid—
Holland, 10 pks. R. W. Greeff & Co.

Paraffin Wax—
U. States, 750 cs. Anglo-American Oil Co.

Phosphates—
Holland, 150 t. Lawes Chemical Manure Co.
W. Indies, 397 G. M. Bauer

Potash—
Germany, 1 t. 1 c. H. Lambert
,, 3 Petri Brs.
,, 14 pks. T H. Lee

Potassium Carbonate—
Germany, 6 t. 10 c A. & M. Zimmermann
,, 6 3 H. Lambert
,, 6 Petri Brs.

Potassium Chlorate—
Sweden, 200 pks G. Boor & Co.

Potassium Oxalate—
Holland, 4 pks. R. W. Greeff & Co.

Potassium Permanganate —
Germany, 40 pks. R. W. Greeff & Co.

Potassium Prussiate —
France, 13 pks. J. Owen

Potassium Sulphate—
Germany, 500 pks F. W. Berk & Co., Ld.

Red Lead—
Germany, 4 pks. H. Lambert

Rosin—
France, 11 brls. R. James & Co.
,, 24 Poth, Hille, & Co.
U. States, 300 Moore & Hole
,, 750 H. Hill & Sons

Salammoniac—
E. Turkey, £35 L. & I. D. Jt. Co.

Salicylic Acid—
Germany, 12 pks. T. H. Lee

Saltpetre—
E. Indies, 789 bgs. Perkins & Homer
,, 16 cks. L. & I. D. Jt. Co.
Germany, 62 Lucas & Spencer's Wf.
Bengal, 606 bgs. ,,

Soda—
Belgium, 3 t. T. Ronaldson & Co.
,, 3 A. G. Barker

Soda Crystals—
Belgium, 10 t. 3 c. Leach & Co.

Sodium Bicarbonate—
Belgium, 5 t. T. H. Lee

Sodium Hyposulphite—
Germany, 15 t. 10 c. H. Lambert

Sodium Prussiate—
Belgium, 4 t. 7 c. T. Ronaldson & Co.

Starch—
U. States, 300 pks. R. G. Hall & Co.
,, 100 Valentin, Tod, & Co.
,, 800 Union Ltge. Co., Ld.
,, 250 R. Bennett & Co.
,, 120 Ohlenschlager Brs.
France, 185 W. E. Cole
,, 220 A. C. Hitchcock
,, 61 S. Mendelsohn
Holland, 1,735 Little & Johnston
,, 80 Robinson, Roberts & Co.
,, 136 G. S. N. Co.
,, 340 A. Starck
,, 10 A. G. Robinson & Co.
,, 40 J. Barber & Co.
Belgium, 160 T. Ronaldson & Co.
,, 525 T. H. Lee
,, 40 Bullard, King, & Co.
,, 101 Leach & Co.
Germany, 2,680 Horne & Co.

Stearine—
Belgium, 102 bgs. J. W. Baker
,, 313 T. T. Creed
,, 127 W. H. Mitchell
France, 320 G. Boor & Co.
,, 100 H. Hill & Sons
Holland, 340 ,,
Sweden, 35 W. E. Bott & Co.

Sulphur—
Italy, 20 t. J. E. Kitton

Sulphuric Acid—
France, 50 pks. Burnett Brs. & Sons

Tallow—
France, 128 bgs. H. Hill & Sons
,, 35 cks. W. E. Cole
,, 35 D. Smith
U. States, 133 Lunham & Moore
N. Zealand, 3 R. Davies & Co.
,, 75 Mordaunt Brs.
,, 3 Low, Sons, & Bedford
,, 322 Phillipps & Graves
,, 160 J. W. Cook & Co., Ld.
,, 25 Brown & Elmslie
,, 28 N. M. & A. Co.
,, 12 Lucas & Spencer's Wf.
Holland, 150 C. S. Lovell
N.S.W., 257 Dyster, Nalder, & Co.
,, 120 Hoare, Wilson, & Co.
,, 332 Phillipps & Graves
,, 95 Concordia Wf.
,, 266 J. W. Cook & Co., Ld.
S. Australia, 85 ,,
,, 106 Phillipps & Graves
,, 12 Hicks, Nash, & Co.
,, 76 Netherlands S. B. Co.
Germany, 8 Aust. Meat Co.

Tartaric Acid—
Holland, 12 pks. Kirkpatrick, Barr, & Co.
Germany, 10 ,,
Belgium, 3 F. C. Devon & Co.

Ultramarine—
Belgium, 7 pks. W. Harrison & Co.
,, 4 Tough & Henderson
Holland, 5 J. Barber & Co.
Germany, 8 D. Storer & Sons
,, 21 H. Lambert
,, 8 Argo S. S. Co.

Varnish—
U. States, 19 pks. Atlantic Transport Co.
N. Russia, 71 ,,
Holland, 10 Phillipps & Graves

Verdigris—
France, 3 pks. B. & F. Wf. Co., Ld.
,, 4 Skilbeck Brs.

White Lead—
Holland, 27 pks. Burrell & Co.
,, 31 Perkins & Homer
,, 54 A. & M. Zimmermann
,, 40 Randall Brs.
,, 20 Kerestedji & Co.
Italy, 22 Soundy & Sons
Belgium, 21 Fleming's Oil & Chemical Co.
,, 20 J. L. Lyon & Co.
,, 95 T. & W. Farmiloe, Ld.
Germany, 25 H. B. Alder & Co.
,, 5 H. Lambert
,, 58 Randall Brs.

Wood Pulp—
Holland, 800 bgs. E. J. & W. Goldsmith
,, 48 Henderson, Craig,
48 pks. & Co.
Norway, 150 bgs. A. E. Reed & Co.
,, 4,000 E. J. & W. Goldsmith
,, 640 pks. W. E. Bott & Co.
,, 16 W. D. Cork
,, 4,570 London Paper Mills Co.
,, 46 M. Dk. Co.

Sweden, 579 ,,
,, 500 Tough & Henderson
,, 2,650 Andrews & Co.
,, 320 W. G. Taylor & Co.
U. States, 150 Henderson, Craig, & Co.
Germany, 830 Kennett Wf. Co.
Portugal, 400 bgs. Horne & Co.
,, 100 pks. Page, Son, & Co.
,, 300 Horne & Co.

Zinc Oxide—
Germany, 50 pks. Prprs. Dowgate Dk.
Holland, 80 M. Ashby, Ld.
U. States, 300 ,,
Belgium, 100 Kerestedji & Co.
,, 100 Soundy & Sons

LIVERPOOL.

Week ending August 31st.

Aluminium—
New York, 363 bls. T. Ashbury

Antimony—
Boston, 3 cks. Typke & King

Barytes—
Hamburg, 36 cks.
Antwerp, { 105 / 150 bgs.
Rotterdam, 50

Bones—
Alexandria, 155 bgs.

Boracic Acid—
Leghorn, 92 cks.

Chemicals *(otherwise undescribed)*
Antwerp, 21 crts.

Coal Products—
Tar
Archangel, 2,495 brls.

Colours—
Antwerp, 4 cks.
Hamburg, 4 cs.

Cottonseed Oil—
New York, 225 brls.

Dried Blood—
Alexandria, 124 bgs.

Dyestuffs—
Cochineal
Las Palmas, 50 bgs. Kennedy & Moon
Cutch
Rangoon, 1,170 bxs.
Extract
Nantes, 610 cks. R. J. Francis
St. Nazaire, 360
Halifax, 14 W. I. Chem. Co.
Logwood
New York, 133 pcs.
Belize, 450 t. P. Leckie & Co.
Hamburg, 4 10c.

Farina—
Havre, 100 bgs. Cunard S.S.Co.

Glucose—
New York, 125 brls.

Glue—
New York, 16½ brls. Haffner, Hilpert, & Co.
Havre, 7 cs. Cunard S.S. Co.
Hamburg, 50 bgs.
Rotterdam, 140
Rouen, 61 cks. Co-op. W'sale Society, Ld.

Gutta Percha—
Dunkirk, 6 pks.

Linseed Oil—
New York, 1 cs.

Lithopone—
Rotterdam, { 60 cks. / 40 crts.

Manganese—
Hamburg, 1 ck.

Ochre—
Marseilles, 3 cks. J. Glynn & Son
Rouen, 65 Co-op. W'sale Society, Ld.

Oxalic Acid—
Rotterdam, 8 cs.

Paint—
Boston, 37 pks. Pitt & Scott
,, 2 cks. Pearson B. Kelly
New York, 1 cs.
Marseilles, 80 cks. Sidestrie & Co.
Amsterdam, 20 dms.
Hamburg, 20

Paraffin Wax—
Rangoon, 800 bxs.

Potash—
Hamburg, 34 cks.
Rouen, 51 Co-op W'sale Society, Ld.
Dunkirk, 20 dms. Bancroft & Co.
,, 12

Potassium Chlorate—
Marseilles, 200 cks.

Pyrites—
Huelva, 2,031 t. Matheson & Co.

Red Lead—
Rotterdam, 62 cks.

Rosin—
Savannah, 3,936 brls.
New York, 2,600
Boston, 2,000

Saltpetre—
Hamburg, 8 cks.

Sheep Dip—
B. Ayres, 273 dms. Tudor, Moore, & Co.
Boston, 90 bxs. Quibell Brs.

Soap—
Boston, 2 bxs. Elder, Dempster, & Co.
N. York, { 4,530 / 5,252 cs. / 835 pks.
N. Orleans, 2,037 brls.
Naples, 73 cs.
Boston, 12 W. Foggett

Soapstone—
Genoa, 200 bgs.

Sodium Nitrate—
Taltal, 16,189 bgs.

Starch—
Hamburg, 495 cs.
Antwerp, 121
Amsterdam, 95
Rotterdam, 40
New York, 40 brls. J. Armstrong & Co.

Stearine—
Antwerp, 13 bgs.

Sulphur—
Catania, { 146 brls. / 280 bgs.

Sulphuric Acid—
Bordeaux, 30 pks.

Tallow—
New York, 250 hhds. M. M. Schultz
,, { 65 tcs. / 10 kgs. / 4 cs.
Boston, { 200 brls. / 288 tcs.

Tartar—
Bordeaux, 23 cks.

Tartaric Acid—
Hamburg, 21 cks.

Ultramarine—
Rotterdam, 32 cks.

Varnish—
New York, 10 brls. W. A. Warren
,, 1 bx.
Boston, 14 pks. W. H. Staynes & Smith

Verdigris—
Bordeaux, 4 cks.

Waste Salt—
Hamburg, 200 t. qty.

White Lead—
Rotterdam, 63 cks.

Wolfram—
Oporto, 5 bgs.

Wood Pulp—
Quebec, 164 t.
Halifax, 5,204½ Becker & Co.

Zinc Oxide—
Hamburg, 5 cks.

Zinc White—
Rotterdam, 10 cks.

HULL.

Week ending September 2nd.

Alkali—
Hamburg, 1 ck. Wilson, Sons, & Co., Ld.

Antimony—
Hamburg, 30 cs. Wilson, Sons, & Co., Ld.

Barytes—
Amsterdam, 69 cks. Hull & Netherlands S. S. Co.
Antwerp, 134 pks. Bailey & Leetham, Ld.
,, 146 cks. H. F. Pudsey
,, 100 bgs.
Bremen, 38 cks. Sissons Brs. & Co., Ld.

Chemicals *(otherwise undescribed)*
Antwerp, 3 cks.
Rotterdam, 2 Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 65 pks. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 148 pks. Hull & Netherlands S. S. Co.
Pitch
Rotterdam, 30 cks. Hull & Netherlands S. S. Co.
Tar
Uleaborg, 1,300½ brls. J. Good & Sons
,, 1,300½ J. M. Hamilton & Co.

Colours—
Amsterdam, 12 cks. Hull & Netherlands S. S. Co.
Antwerp, 74 Wilson,
,, 10 pks. Sons, & Co., Ld.
,, 15 brls.
Rotterdam, { 69 pks. / 10 cks. Hull & Netherlands S. S. Co. / 1 cs.
Stettin, 6 cks. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.

Dyestuffs—
Extract
Bordeaux, 130 cks.
Indigo
Rotterdam, 4 chts. Hull & Netherlands S. S. Co.

Farina—
Harlingen, 300 bls. Hull & Netherlands S. S. Co.
,, 600 bgs.
Stettin, 75

Glucose—
Stettin, 10 cks. Wilson,
100 bgs. Sons, & Co., Ld.

Glue—
Hamburg, 110 bgs.

Glue Stock—
Stockholm, 4 bls. Wilson, Sons, & Co., Ld.

Lead Acetate—
Rotterdam, 12 cks. Hull & Netherlands S. S. Co.

Limestone—
Antwerp, 2 crts.

Litharge—
Rotterdam, 7 cks. Hull & Netherlands S. S. Co.

Mineral White—
Hamburg, 3 pks. Bailey & Leetham, Ld.

Phosphates—
Bona, 2,400 t. Hammond, Emes & Co.

Phosphorus—
Rotterdam, 1 cs. T. F. Bell & Co.

Potash—
Antwerp, 1 ck. Bailey & Leetham, Ld.
,, 53 Wilson, Sons, & Co., Ld.
Dunkirk, 20 ,,

Pyrites—
Huelva, 800 t.

Red Lead—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.

Rosin—
Brunswick, 1,589 brls.

Salt—
Rotterdam, 5 cks. Hull & Netherlands S. S. Co.

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Hamburg, 12 kgs. ,,

Soda—
Antwerp, 39 cks. Wilson, Sons, & Co., Ld.
Ghent, 12

Sodium Nitrate—
Junin, 15,229 bgs.

Starch—
Amsterdam, 30 bgs. Hull & Netherlands S. S. Co.
136 cs.
Antwerp, 40 Bailey & Leetham, Ld.
,, 40
,, 100 Wilson, Sons, & Co., Ld.
Bremen, 1,778 Veltmann & Co.
Ghent, 251 bxs. Wilson, Sons, & Co., Ld.

Stearine—
Antwerp, 50 bgs. Wilson, Sons, & Co., Ld.

Sulphate (Alumina)—
Ghent, 100 bgs.

Tallow—
Dunkirk, 120 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 16 tcrs. ,,

Tartaric Acid—
Rotterdam, 20 cks. Hull & Netherlands S. S. Co.

Turpentine—
Brunswick, 3,244 brls.

Ultramarine—
Rotterdam, 10 cs. Hull & Netherlands S. S. Co.
5 cks.

Varnish—
Antwerp, 5 brls. Wilson, Sons, & Co., Ld.

White Lead
Antwerp, 11 cks. Bailey & Leetham, Ld.
Rotterdam, 110 Hull & Netherlands S. S. Co.

Wood Pulp—
Christiania, 1,582 pks.
Drontheim, 200 bls. Wilson, Sons, & Co., Ld.
Gothenburg, 466 pks.
Helsingfors, 582 J. Good & Sons
,, 216

Zinc Oxide—
Antwerp, 171 pks. Bailey & Leetham, Ld.
Hamburg, 10 cks. Johnson Brs.

Zinc White—
Amsterdam, 13 cks. Hull & Netherlands S. S. Co.

MANCHESTER.

Week ending September 2nd.

Ammonia—
Rotterdam, 3 cks.

Antimony Salt—
Rotterdam, 1 ck.

Barytes—
Antwerp, 19 cks. J. T. Fletcher & Co.
,, 200 bgs.
Rotterdam, { 200 / 22 cks.

Castor Oil—
Antwerp, 49 brls.
Leghorn, 10 cs.

Caustic Lye—
Hamburg, 20 dms.

Chemicals *(otherwise undescribed)*
Hamburg, 1 cs.

Coal Products—
Alizarine
Rotterdam, 122 cks. 3 cs.
Beta Naphthylamine
Rotterdam, 1 cs.
Pitch
Hamburg, 25 cks.
Tar
Hamburg, 50 cks.

Colours—
Antwerp, 2 cks.
Rotterdam, { 146 39 cs. / 69 brls. / 32 bxs.

Dyestuffs—
Extract
Hamburg, 100 bgs.
New York, { 75 bxs. / 12 brls.
Logwood
Hayti, 443 t.

Farina—
Hamburg, 54 bgs.
Rotterdam, 80

Glucose—
New York, 350 brls.
Rotterdam, 5 cks.

Glue—
Antwerp, 40 bls.
Hamburg, { 10 bgs. / 5 cks.
Rotterdam, 150 bgs.

Limestone—
Antwerp, 13 crts.

Oxalic Acid—
Rotterdam, 30 cks.

Paraffin Wax—
New York, 570 brls.
Potash—
Rotterdam, 60 cks.
Potassium Muriate—
Hamburg, 46 dms.
Potassium Permanganate—
Hamburg, 10 cks.
Pyrites—
Huelva, 2,3 7 t.
Rosin—
New York, 300 brls.
Salammoniac—
Antwerp, 5 brls.
Saltpetre—
Hamburg. 6 cks.
Soapstone—
Genoa, 1,280 bgs.
Sodium Sulphate—
Antwerp, 3 brls.
Starch—
Antwerp, 344 cs.
Hamburg, 2
New York, 2,467 bgs. 1,346 sks.
Rotterdam, 5 201
Stearine—
Antwerp, 180 bgs.
Rotterdam, 7 18 bls.
Sulphuric Acid—
Rotterdam, 30 cks.
Tallow—
Hamburg, 100 tcs.
New York, 150 bds.
Tannic Acid—
Hamburg, 4 cks.
Tannin—
Hamburg, 4 cks.
Rotterdam, 4
Tartaric Acid—
Rotterdam, 30 kgs. 64 cks.
Ultramarine—
Rotterdam, 4 cks.
Waste Salt—
Hamburg, (two lots)
White Lead—
Rotterdam, 5 cks.
Wood Pulp—
Christiania, 6,967 bls. W. H. Ingram
Gothenburg, 660 bdls.
,, 4 319 bls.
Hamburg, 680
Moss, 466 ,,
Skein, 1,271 ,,
,, 1,503
Sarpsborg, 1 562 Kellner, Partington P. Co.
Zinc Oxide—
Antwerp, 20 brls.
New York, 100

GLASGOW.

Week ending September 7th.

Acetin—
Hamburg, 1 ck.
Aethyl Alcohol—
Hamburg, 1 cs
Asbestos—
Genoa, 117 pks. 2 cs.
Barium Chloride—
Hamburg, 1,250 bgs.
Barium Sulphate—
Antwerp, 74 cks. 930 bgs
Barytes—
Amsterdam, 100 bgs. J. Rankine & Son
23 cks.
Rotterdam, 54 pks ,,
Blanc Fixe—
Hamburg, 23 cks.
Bleach—
Hamburg, 33 cks.
astor Oil—
Antwerp, 117 cks
Marseilles, 10 cs
,, 30 brls.
Leghorn, 3 35 cs.
Chalk—
Leghorn, 20 cs.
Coal Products—
Alizarine
Amsterdam, 30 brls. J. Rankine & Son
Aniline
Amsterdam, 1 ck.
Aniline Colours
Amsterdam. 1 cs. 2 cks.
Aniline Dyes
Bombay, 1 prcl.
Colours—
Amsterdam, 7 cks. 3 cs. 7 bxs. 33 brls. J. Rankine & Son
Rotterdam, 5 cks. 228 pks. ,,
Rouen, 2
Hamburg, 1 cs. 6 cks.
Cottonseed Oil—
New York, 268 bls.
Cream of Tartar—
Genoa, 14 brls.
Dyestuffs—
Extracts
Antwerp, 2 cks.
Rouen, 7
Philadelphia, 50 brls. 1 bx
Gambier
Singapore, 250 bls. W. Hunter & Co.
Myrabolams
Antwerp, 39 bgs
Farina—
Delfszyhl, 20 bgs
Gelatine—
Amsterdam, 3 cs. J. Rankine & Son
Glucose—
Baltimore, 300 brls.
New York, 50
Glue—
Amsterdam, 21 bgs J. Rankine & Son
Hamburg, 110
Antwerp, 5 cks.
Rouen, 2
Genoa, 25 brls.
Guano—
Talknafjord, 162 sks.
Manure—
Talknafjord, 265 sks.
Paint—
Marseilles, 7 cs.
Painters' Colours—
Antwerp, 12 cks.
Paracul Acid—
Amsterdam, 1 cs. J. Rankine & Son
Paraffin Wax—
Philadelphia, 430 brls.
Plumbago—
Antwerp, 77 brls.
Genoa, 200 bgs.
Potash—
Rotterdam, 40 cks. J. Rankine & Son
Amsterdam, 60 ,,
Hamburg, 64 25 dms.
Red Lead—
Amsterdam, 39 cks. J. Rankine & Son
Salicylic Acid—
Hamburg, 1 cs.
Salt—
Hamburg, 600 bgs.
Soap—
Amsterdam, 6 cs. J. Rankine & Son
Genoa, 50
Rouen, 4
Marseilles, 70 cks.
Soda—
Genoa, 25 brls.
Rouen, 10 cks.
Sodium Nitrate—
Amsterdam, 4 cks. J. Rankine & Son
Starch—
New York. 1,338 bgs.
Antwerp, 10 400 cs.
Baltimore, 125 sks.
Stearine—
Amsterdam, 202 bgs
Sulphur—
Hamburg. 1 dm.
Varnish—
Antwerp, 1 cs.
New York. 125 brls.
Waste Salt—
Hamburg, 150 t. 853 cks. 1000 bgs.
White Lead—
Rotterdam, 86 pks. J. Rankine & Son
Amsterdam, 19 brls. ,,
Wood Pulp—
Frano, 2,107 bls. W. G. Taylor & Co.
Miramichi, 1,987 Edmiston & Mitchells
Christiania, 720
Drammen, 1,072 38 cs.
Zinc Oxide—
New York, 100 brls.

TYNE.

Week ending September 2nd.

Barytes—
Rotterdam, 59 cks. Tyne
1 bg. S. S. Co
Colours—
Rotterdam, 1 brl. Tyne S. S. Co.
Phosphates—
Antwerp, 300 t. Langdale's Chemical M. Co
Dunkirk, 203 ,,
Pensacola, 2,011
Soap—
Rotterdam, 10 cs. Tyne S. S. Co.
Sodium Sulphide—
Hamburg, 24 cks. Tyne S. S. Co.
Starch—
Rotterdam, 60 cs. Tyne S. S. Co.
Wood Pulp—
Christiania, 545 bls. P. H. Matthiessen & Co
,, 965

GOOLE.

Week ending August 30th.

Alkali—
Calais, 7 cks.
Antimony—
Boulogne, 4 cks.
Barytes—
Antwerp, 33 cks.
Rotterdam, 20 bgs.
Caoutchouc—
Boulogne, 19 cks.
Chemicals (*otherwise undescribed*)
Hamburg, 1 ck.
Colours—
Boulogne, 10 cks. 1 cs.
Hamburg, 36 6
Dyestuffs (*otherwise undescribed*)
Amsterdam, 10 cks. 3 pks.
Boulogne, 25
Rotterdam, 417 65 cs.
Glucose—
Calais, 200 bgs.
Glue—
Antwerp, 1 ck.
Boulogne, 4 bs.
Logwood—
Belize, 434 t.
Ochre—
Dunkirk, 130 cks.
Potash—
Dunkirk, 40 dms.
Pyrites—
Huelva, 700 t.
Saltpetre—
Hamburg, 1 ck.
Rotterdam, 70 bgs.
Starch—
Ghent, 121 cs.
Waste Salt—
Hamburg, 292 cks.

GRIMSBY.

Week ending September 2nd.

Caoutchouc—
Hamburg, 11 cs.
Rotterdam, 3
Chemicals (*otherwise undescribed*)
Antwerp, 4 cs.
Hamburg, 4 3 pks.
Coal Products—
Aniline Dyes
Rotterdam, 2 cks.
Dyes
Hamburg, 19 pks
Pitch
Hamburg, 108 cks.
Colours—
Antwerp, 2 cks. 70 pks.
Hamburg, 3 cs. 135
Rotterdam, 1 4
Farina—
Hamburg, 10 bgs.
Glue—
Hamburg, 2 cks
Lamp Black—
Malmo, 30 cks.
Painters' Colours—
Hamburg, 2 cs.
Soap—
Rotterdam, 40 bgs. 8 cs.
Starch—
Antwerp, 130 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending September 6th.

Alkali—
Hamburg, 2 t. £18
Ammonia—
Adelaide, 10 c. £20
Ammonium Carbonate—
Amsterdam, 30 kgs. £43
St. Petersburg, 5 t. 145
Hamburg, 12 cks. 36
Ammonium Nitrate—
Hamburg, 1 t. 6 c. £36
Ammonium Sulphate—
Hamburg, 95 t. £1,190
San Francisco, 1 16 c. 30
Samarang, 341 12 4,120
Sourabaya, 541 17 6,996
Madeira, 10 4 130
Bremen, 146 1,840
Barium Binoxide—
Paris, 50 t. 13 c. £1,505
Bone Ash—
E. London, 2 t. £50
Boracic Acid—
Bombay, 4 cks. £25
Borax—
E. London, 1 t. 14 c. £71
Carbolic Oil—
Philadelphia, 61 cks. £132
Carbonic Acid Gas—
Channel Is., 72 tubes £27
Wanganui, 15 cylrs. 30
Caustic Soda—
Durban, 1 t. £22
Wellington, 5 9 c. 50
Pt. Elizabeth, 3 18 44
Patea, 3 6
Chemicals (*otherwise undescribed*)
Philadelphia, 32 cks. £571
Perth, 19 pks. 23
Ostend, 6 cs. 250

Channel Is., 1 11
Rosario, 28 34
Wellington, 10 c. 7
Durban, 21 10 268
Calcutta, 4 18
Mombassa, 3 53
Cologne, 7 brls. 43
St. Petersburg, 3 122
Antwerp, 26 38
St. John's, Nfd. 7 17
Dusseldorf, 39 107
Fremantle, 5 28
Constantinople, 1 t. 32
Antwerp, 10 kgs. 15 95
Brussels 5 33
Hamburg, 10 / 27 cks. 272
Adelaide, 37 cs. 99
M. Video, 15 30
Rotterdam, 10 kgs. 1 11 259

Chloride of Lime—
E. London, 2 t. 13 c. £27

Citric Acid—
E. London 3 c. £19
Bombay, 2 21
Christchurch, 1 10
Rotterdam, 1 7
Calcutta 1 ck. 4 cs. 28

Coal Products—
Alizarine
Lyttelton, 9 cks. £131
Boston, 43 475
St. Petersburg, 7 cs. 317
Aniline
Pt. Chalmers, 1 cs. £25
Otago 3 23
Barcelona, 1 brl. 7
Ghent, 2 cks. 20
Aniline Oil
Rotterdam, 14 dms. £420
Benzol
Stockholm, 12 dms. £110
Carbolic Acid
Boston, 176 cks. £1,287
Wellington, 3 7
Paris, 6 15
E. London 40 dms. 15
Hiogo, 25 76
Dunedin, 2 13
Hong Kong, 25 9
Coal Tar Dyes
Brisbane, 1 cs. £12
Wellington, 1 ck. 4 pks. 36
Boston, 1 21
Sydney, 20 brls. 14
Creosote
Dieppe 80,500 galls. £1,094
St. Malo, 22,600 318
Newport News, 150 cks. 210
Naphthaline
Brussels, 45 cks. £25
Shanghai, 50 dms. 35
Pitch
Adelaide, 10 crts. £7
Alexandria, 258 brls. 81
Sydney, 5 8
Boston, 500 cks. 280
Mauritius, 9 7
Prussian Blue
Ghent, 3 cks. £16
Tar
Hong Kong, 15 brls. £9
E. London, 250 dms. 12
Demerara, 5 7
Mauritius, 30 9
Adelaide, 5 7
Durban, 50 9

Coal Products (*otherwise undes.*)—
Cape Town, 70 dms. £6

Copper Sulphate—
Brussels, 20 t. £475
Galatz, 10 c 11
E. London, 12 18
Canterbury, 10 6

Cream of Tartar—
Melbourne, 10 c. £38
Fremantle, 5 20
Patea, 4 15

Disinfectants—
Canterbury, 5 cs. £14
Durban, 2 pks. 20 dms. 25
Bombay, 6 11
Annoy, 2 cks. 30 16
Otago, 27 48

Glycerine—
New York, 19 t. 3 c. £556

Manure—
Trinidad, 5 t. £38
Colombo, 30 203
Madeira, 20 8 c. 65
Rouen, 201 750
Barcelona, 6 19 32
Genoa, 119 14 395

Nitric Acid—
Melbourne, 10 cs. £12

Oxygen Gas—
Amsterdam, 1 cy. £14

Potassium Cyanide—
E. London, 15 t. £1,601
Gutujewsky 5 cs. 57
Delagoa Bay, 9 6 c. 40 1,415
Shanghai, 16 41
Melbourne, 9 13 935
Fremantle, 240 2,666
Wellington, 4 464

Potassium Prussiate—
Antwerp, 19 cks. 385
Genoa, 23 432
Naples, 1 19

Salt Cake—
Brussels, 130 t. £230

Saltpetre—
Pt. Elizabeth, 11 c. £11
Corinto, 1 t. 20
Copenhagen, 5 95
Wellington, 10 11
Melbourne, 4 84
Patea, 2 38

Salts of Soda—
Brussels, 2 c. £14

Sheep Dip—
E. London, 17 c. £40
Sydney, 500 cs. 875
Punta Arenas, 500 685
Gisborne 125 219
Cape Town, 40 dms. 15
B. Ayres, 331 t. 1,600 4,522

Soda—
Pt. Elizabeth, 3 t. £10

Sodium Bicarbonate—
Barbadoes, 1 t. £7
San Francisco, 2 c. 7

Sodium Hyposulphite—
Adelaide, 59 t. 1 c. £271

Sodium Prussiate—
Philadelphia, 24 cks. £281

Sulphuric Acid—
Durban, 15 c. £18
E. London, 3 t. 18 15
Pt. Elizabeth 25 cs. 17

Tartaric Acid—
Sydney, 20 kgs. £110

LIVERPOOL.

Week ending September 6th.

Acetic Acid—
Brisbane, 5 c. £7
Santos 9 20
Copenhagen, 4 t. 9 104

Ammonium Carbonate—
Hamburg, 1 t. 1 c. £28
Marseilles, 11 6

Ammonium Muriate—
Trieste, 11 t. 11 c. £241
Barcelona, 2 42
Genoa, 1 1 1 q. 23
Stettin, 11 10
Rotterdam, 1 3 19
Philadelphia, 15 3 —

Ammonium Sulphate—
San Francisco, 50 t. 13 c. £600
Las Palmas, 5 9 1 q. 65
Boston, 25 10 1 315
New York, 100 15 3 1,262
Lisbon, 49 3 3 598
Leghorn, 10 6 3 128
Valencia, 25 300
Nantes, 297 15 3 3,538
Barcelona, 123 8 3 1,571

Arsenic—
Rouen, 5 t. 13 c. £105

Bleaching Powder—
Amsterdam, 117 cks.
Ancona 11
Boston, 398
Cambrai 18
Cleveland, 20
Dayton, 18
Detroit, 26
Fiume, 30
Genoa, 30
Georgetown, 29
Ghent, 12
Leghorn, 20
Lisbon, 55
Middleton, 45
Milwaukee, 213
Muncil, 70
Montreal, 121 18 brls.
New York, 192 25
Oporto, 159
Spring Grove, 133
Venice, 30
Vigo, 20
Wabash 35

Boracic Acid—
Hamburg, 6 t. 6 c. 1 q. £164
Adelaide, 5 2 7

Borate of Lime—
Hamburg, 100 t. 12 c. 1 q. £1,025

Borax—
Montreal, 9 t. 19 c. £160
Yokohama, 3 7 3 q. 42
Adelaide 1 16
St. John, N.B., 2 2 35
Callao, 2 29
Hamburg, 15 15 259
Ghent, 1 3 2 19
Progresso, 6 2 6

Calcium Chloride—
Baltimore, 13 t. 9 c. £26
New York, 10 23

Castor Oil—
Saltille, 4 cs.

Caustic Potash—
Baltimore, 2 t. 13 c. £76
New York, 1 5 33

Caustic Soda—
Adelaide, 20 dms.
Alexandria, 45
Algoa Bay, 35 cs.
Alicante, 30
Bari, 50 20 cks.
Barcelona, 100
B. Ayres, 215
Callao, 20
Chatham, 1 pk.
Chicago, 100 20 brls. 25 bxs.
Christiania, 5
Corunna, 39
Dayton, 50
Fairwater, 14
Fiume, 30
Galatz, 190
Genoa, 378
Ghent, 17
Hamburg, 84
Havana 100
Ibrail, 200
Leghorn, 35
La Guayra, 8
Lisbon, 196
Malaga, 10
Manila, 150
Marseilles, 20
Melbourne, 21 13 pks.
M. Video, 125
Montreal, 249 2 cks.
Naples, 7
New York, 100 brls.
Odessa, 80
Oporto, 140
Para, 20
Penang, 103
Pernambuco, 100
Piræus, 30
Porto Alegre, 50
Rio de Janeiro, 15
Rio Grande, 175
Rotterdam, 114
Samarang, 240
Sydney, 361
Sarnia, 40
Seville, 219
Singapore, 20
Stettin, 264
Tarragona, 29
Titusville, 50
Trieste, 40
Valencia, 25 cks.
Vancouver, 20
Venice, 64
Vigo, 30
Wellington, N.Z., 9
" 78 brls.
Yokohama, 50

Chemicals (*otherwise undescribed*)
Varna, 4 t. 14 c. 3 q. £23
M Video, 14 17 3 67
New York, 1 1 2 6
Johannesburg, 5 1 500
B. Ayres, 2 1 3 11
Bombay, 1 14 29
Canea, 1 19 3 9
Brisbane, 1 5 21
Barcelona, 5 / 9 cks. 2 / 20 brls. 1 187
Alexandria, 20 62
Madras, 8 38
Hamburg, 4 32
Trieste, 19 c. 2 25
Adelaide, 10 t. 8
Singapore, 3 300
Philadelphia, 29 11 740

China Clay—
Baltimore, 780 cks.
Barcelona, 21 cs.
Bombay, 762
Boston, 2,762
Madras, 240
Maranham, 60
Melbourne, 20
Montreal, 162
Newport News, 400
New York, 382
Philadelphia, 750
Windsor Mills, 334

Chloride of Lime—
New York, 2 t. 13 c. £21

Coal Products—
Aniline Colours
Galata, 2 cs.
Hartford, 4 cks.
Hespeler, 1
New York, 9
Aniline Salt
Antwerp, 5 cks.
Piræus, 20
Rotterdam, 12 kgs.
Carbolic Acid
Rouen, 5 t. 10 c. 1 q. £53
Antwerp, 5 100
Rotterdam, 5 100
Halifax, 18 28
Yokohama, 6 4 307
New York, 20 cks. 160
Hamourg, 10 34
Sydney, 1 2 3 16
Genoa, 4 3 17
Newport News, 10 3 637
B. Ayres, 9 3 38
Marseilles, 4 1 3 244
Creosote
Dunkirk, 866 bgs.
Creosote Oil
Montreal, 25 brls.
Eosine
B. Ayres, 1 c. £16
Naphtha
Melbourne, 50 dms.
Pitch
New York, 55 cks.
Sydney, N.S W., 4 brls.
Tar
Bordeaux, 200 cks.
Manaos, 10 brls.
Para, 20
Philadelphia, 200

Copperas—
Beyrout, 7 t. 5 c. £21
Caiffa, 1 9 5

Copper Sulphate—
Gothenburg, 1 t. £24
Victoria, B.C., 2 10 c. 57
Catania, 4 16 109
Bordeaux, 4 17 110
Montreal, 4 17 110
Melbourne, 12 10 283
Galatz, 6 144
Johannesburg, 10 12
E. London, 4 5
Brisbane 10 12
Wellington, 1 23
Invercargill, 10 11
Bombay, 2 10 56
Malaga, 20 3 q. 400
Gutujewsky, 20 1 3 47
Rouen, 13 5 315

Cream of Tartar—
Maranham, 2 c. £5

Disinfectants—
Rangoon, 27 kgs. £35
Tongku, 12 c. 14

Glycerine—
Salonica, 9 c. £27
San Francisco, 24 12 1,077
Bilbao, 24 9 904
Yokohama, 5 30
Kobe, 18 3 q. 55
Hamburg, 12 36
Tongku, 1 58
Montreal, 5 10 29

Guano—
Seville, 10 t. £76

Magnesia—
Paris, 10 cs.

Magnesium Chlorate—
Colombo, 5 t. 2 c. £14

Manganese—
Melbourne, 11 t. 1 c. 3 q. £27

Manure—
Las Palmas, 15 t. £139
Manila, 22 12 c. 150

Oxalic Acid—
Boston, 5 t. 10 c. £114

aint—
Alexandria, 345 kgs. 10 t.
Arroyo, 1 ck.
Barcelona, 8 15 bls.
Belize, 292 13 cks.
Beyrout, 59
Bonny, 5 dms.
B. Ayres, 5
Cabinda, 65
Cadiz, 40
Calcutta, 5 2 121
Cape Town, 60
Cardenas, 2
Gaboon, 1
Havana, 8 cs. 168 4
Hong Kong, 120
Ibrail, 7
Iquitos, 1
Kerasunde, 1
Jeremie, 7
Las Palma, 96 3
Mangalore, 50
Manaos, 15
Manila, 4 24
Maranham, 7
Mayaguez, 10
M. Video, 30 pks.
Nassau, 4
Ordon, 3
Parnahyba, 4 brls. 60 dms.
Ponce, 3 cks.
Pt. Natal, 122 102 cs. 40
Pt. Said, 30
Rio Grande, 3 cks.
Rotterdam, 19 8
Sagua la Grande, 1
San Francisco, 200
St. John's, N'fd, 329 23 cs. 1 fkn.
Santander, 3 cks.
Santiago, 1
Sierra Leone, 36
Singapore, 120
Tripoli, 115 1

Painters' Colours—
B. Ayres, 54 cks. 35 cs. 15 pks.
Genoa, 47
Gijon, 1 bx.
Hong Kong, 5
Lisbon, 30
Louisville, 10 100 brls.
Maranham, 15
Melbourne, 36 kgs. 29 cs.
New York, 12 cks.
Para, { 81 12 2 / 37 brls. 15 dms.
Pt. Natal 100 bgs.
Progresso, 5
Rangoon, 39

Paraffin Wax—
Hiogo, 20 cs.
Ibrail, 12 bgs.
Rio de Janeiro, 10 cks.
Vera Cruz, 100 bgs.

Phosphates—
Barcelona, 25 t. £38
Hamburg, 50 225

Phosphorus—
Hamburg, 6 t. 5 c. £1,033

Potash—
B. Ayres, 8 c. 2 q. £5

Potash Salts—
Savanilla, 2 t. £225
Tal Tal, 2 224

Potassium Bichromate—
Alexandria, 1 t. £28
B. Ayres, 9 c. 2 q. 17
Piræus, 2 4 56
San Francisco, 6 2 190
Vera Cruz, 9 2 20

Potassium Carbonate—
New York, 18 t. 18 c. £338
Valparaiso, 3 4 3 q. 54

Potassium Chlorate—
Bari, 1 t. £30
Gutujewsky, 12 10 c. 40 2
Hamburg, 8 12 26 2
Kalmar, 2 10 7 5
Konigsberg, 1 3 1
Lyttelton, 1 10 4 5
Melbourne, 1 3 0
M. Video, 10 1 7
Naples, 3 9 0
Rotterdam, 3 9 1
St. Petersburg, 11 5 347 6 0
Sydney, 2

Potassium Oxalate—
Bilbao, 1 t. £40

Potassium Prussiate—
B. Ayres, 2 c. 1 q. £8
Bahia, 2 12
Genoa, 10 cks. 158
Vera Cruz, 2 t. 120

Salammoniac—
Alexandria, 5 t. £163
Beyrout, 6 —
Genoa, 3 cks. 27
St. Petersburg, 5 t. 1 c. 140
Trieste, 1 19 66

Salt—
Adelaide, 50 cs.
Antwerp, 270 t.
Baltimore, 315
Boston, 410
Brazzaville, 4 10 c.
B. Ayres, 10 2
Brisbane, 250
Calcutta, 3,987
Cameroons, 111 3
Cape Palmas, 27 7
Chicago, 435
Dunedin, 5
E. London, 22 6
Egwanga, 39 16
Galveston, 300
Ghent, 40
Halifax, 365 16
Iceland, 98
Kingston, Ja., 25
Lagos, 137 10
Loango, 10
Manzanillo, 10
Melbourne, 30
Montreal, 1,770 10
N. Orleans, 630
New York, 151
Noqui, 25
Old Calabar, 50
Opobo, 25
Para, 122 5
Pensacola, 412
Quebec, 557 10
Rangoon, 4,667
Rio Grande, 36 14
Rosario, 12 10
San Francisco, 263
Sydney, 110
Shanghai, 75 cs.
St. John's N'fd., 10
Truro, 87 10 c.
Victoria, B. C., 49 15
Yokohama, 50 cs.

Salt Cake—
Antwerp, 233 t. £292
Delagoa Bay, 10 2 c. 25
Gijon, 58 8 136
Leghorn, 30 21
Philadelphia, 75 3 104

Saltpetre—
M. Video, 1 t. £21
New York, 1 21

Sheep Dip—
Barranquilla, 4 cs. £7
Belize, 1 5 c. 11
B. Ayres, 4 t. 18 200
Dunedin, 7 14 139
M. Video, 1 16 86
Punta Arenas, 9 19 3 q. 250

Soap—
Alexandria, 20 dms.
Algoa Bay, 1,003 bxs.
Antwerp, 40
Assinee, 403
Batavia, 1,900
Bluefields, 100
Bombay, 850 86 cs.
Brussels, 1,950
Boston, 30 pks.
B. Ayres, 2
Burutu, 80
Cabenda, 201
Calcutta, 200 552 12 crts.
Cameroons, 750
Cape Lopez, 75 2
C. C. Castle, 20 2
Cape Town, 1,000
Catania, 230
Chefoo, 47
Colombo, 20 1
Constantinople, 10
Curacao, 267
Delagoa Bay, 250
Drewin, 20 bgs.
Dunedin, 1 tnk.
E. London, 1,200 bxs.
Gaboon, 130
Galata, 20
Gibraltar, 1,282
Grenada, 75
Iquitos, 300
Las Palmas, 1,568
Lagos, 122
Limon, 10
Lisbon, 1 ck.
Madras, 4
Malta, 10
Manila, 2
Mauritius, 751
Mossel Bay, 600
Montreal, 4
New York, 40
Old Calabar, 200
Parnahyba, 50
Para, 200
Penang, 409
Piræus, 15
Pt. Beira, 50
Pt. Natal, 555 63
Pt. Said, 22 1
Punta Arenas, 8
Rangoon, 250 8
Rio de Janeiro, 1
Rotterdam, 100 410
Rouen, 50
Surinam, 61
St. John's, N'fd., 179 11
Sassandra, 20
Shanghai, 13,247 2
Sierra Leone, 50
Singapore, 3,921
Smyrna, 50
Sydney, 10
Tabou, 20
Tangiers, 97
Teneriffe, 600
Tonghu Wf., 42 80 kgs.
Toronto, 3
Trinidad, 1,500 2
Valparaiso, 1
Wellington, 1 tnk.
Yokohama, 12
Zanzibar, 250 bdls.

Soda—
Panama, 10 kgs. 2 cs.

Soda Ash—
Amsterdam, 50 cks.
Baltimore, 35
Barcelona, 23
Bari, 250 bgs.
Barranquilla, 40 pks.
Boston, 80 39 tcs. 72 cks.
B. Ayres, 125 bls. 104
Calcutta, 130 kgs. 25
Callao, 20
Chicago, 17
Copenhagen, 200 bgs.
Fremantle, 33
Lagos, 30 kgs.
Leghorn, 120 bgs.
Lisbon, 15
Maranham, 89 brls.
Melbourne, 48
M. Video, 50 25
Montreal, 150 93
New York, 200 155 tcs. 45
Oporto, 9
Philadelphia, 120 10
Rotterdam, 576
Seville, 150
Smyrna, 250
Talcahuano, 50
Toronto, 100
Trieste, 100
Venice, 200 200
Vera Cruz, 25
Willebroeck, 1,200

Soda Crystals—
Alexandria, 250 brls.
Bombay, 100 kgs.
Boston, 280
B. Ayres, 34 50 bxs.
M. Video, 67 cks.
Penang, 10
Philadelphia, 280
Valparaiso, 50

Sodium Acetate—
Vera Cruz, 2 cks.

Sodium Biarseniate—
Hamburg, 5 cks.

Sodium Bicarbonate—
Amsterdam, 150 kgs.
Antwerp, 17
Auckland, 166
Barcelona, 100
Bilbao, 50 bls.
Bombay, 160
B. Ayres, 34
Calcutta, 1,540
Chatham, 200
E. London, 4 cks.
Fremantle, 440 11
Genoa, 100 19
Gibraltar, 8 brls.
Johannesburg, 24
Karachi, 175
Lyttelton, 40
Malaga, 60 dms.
M. Video, 45 11 pks.
Montreal, { 50 bgs. / 70 kgs.
Moulmen, 30
Perth, 310
St. John's, N'fd., 20
St. Petersburg, 350
Seville, 47 5 cks.
Stettin, 45
Tampico, 200
Trinidad, 100
Vera Cruz, 12
Wellington, 20

Sodium Bichromate—
Rangoon, 20 kgs.

Sodium Carbonate—
Amsterdam, 67 bls.
Calcutta, 12 brls.
New York, 129

Sodium Chlorate—
Boston, 100 kgs.

Sodium Hyposulphite—
Chatham, 2 brls.

Sodium Silicate—
Algoa Bay, 13 brls.

Sodium Sulphate—
Bombay, 12 cks.
Lisbon, 17 brls.

Spent Oxide—
Nantes, 133 t. 2 c. £83

Starch—
Salonica, 25 cs.

Sulphur—
Boston, 260 t. 5 c. £1,109
Gothenburg, 25 108
Halifax, 1 19 10
Havana, 3 17 2 q. 24
Montreal, 100 1 426
Punta Arenas, 2 15 28
Trinidad, 5 2 22

Sulphuric Acid—
Manaos, 10 c. £4
Para, 11 8
Rio de Janeiro, 1 19 14

Superphosphates—
Auckland, 20 t. £56
Barcelona, 200 559
Huelva, 200 536
Las Palmas, 25 56
Lisbon, 100 1 c. 250
Lyttelton, 10 29
Malaga, 200 536
Nantes, 98 8 154
Seville, 209 19 603
Valencia, 108 4 252

Tartaric Acid—
Piræus, 4 c. £24

Tin Crystals—
Trinidad, 17 c. £84

Varnish—
Brisbane, 5 pks.
Barcelona, 5 dms.
Calcutta, 1 cs 40
Candia, 10 brls. 1
Cape Town, 9
Hong Kong, 15
Old Calabar, 36
Santander, 1
Valparaiso, 45

Verdigris—
Boston, 20 cks. £378

White Lead—
Ferrol, 12 brls.
Lisbon, 6 cks.
Pt. Elizabeth, 5
Tonghu Wf., 38 kgs.

Zinc Chloride—
Bombay, 20 t. 2 c. 2 q. £353

MANCHESTER

Week ending September 6th.

Bleaching Powder—
Montreal, 80 cks.
Sherbrooke, 50

Chemicals *(otherwise undescribed)*
Bombay, 102 brls.
Christiania, 9 kgs.

Coal Products—
Aniline Colours
Paris, 2 kgs. 6 cs.
Aniline Salt
Germany, 10 cks.
Naphtha
Lille, 15 brls.
Naphthylamine
Germany, 27 cks.

Colours—
Belgium, 1 ck.
Germany, 1

Dyestuffs *(otherwise undescribed)*
Norway, 27 cks.

Farina—
Bombay, 10 bgs.

Gamma Acid—
Germany, 9 cks.
Glue—
Germany, 27 cks.
Holland, 31
Magnesium Sulphate—
Montreal, 30 brls.
Salt—
Germany, 100 bdls. 122 bls.
Soap—
Holland, 1 brl.
Sodium Naphthionate—
Germany, 26 cks.
Sodium Sulphate—
Galt, 10 cks.
Montreal, 40 pks.
Tallow—
Germany, 41 cks.
Bombay, 16 30 brls.

HULL.

Week ending September 2nd.

Alkali—
Christiania, 1 ck.
Reval, 81
Ammonium Sulphate—
Hamburg, 300 bgs.
Rotterdam, 959
Bleaching Powder—
Boston, 155 cks.
Chemicals (*otherwise undescribed*)
Abo, 5 cs.
Amsterdam, 2 20 pks.
Antwerp, 1
Christiania, 5 958 slbs.
Danzig, 12 20 pks.
Drontheim, 2 cks.
Gothenburg, 1 7
Hamburg, 14 25
Helsingfors, 11 7
Odessa, 16 10 btls.
Riga, 20
Rotterdam, 27 44
St. Petersburg, 1 1 40
Stockholm, 25
Stettin, 134 pks.
Coal Products—
Creosote
Odessa, 10 cks.
Stockholm, 100
Pitch
Antwerp, 97 t.
Tar
Abo, 10 cks.
Drontheim, 5
Cottonseed Oil—
Alexandria, 4 t. 8 c.
Antwerp, 5 2
Christiania, 1
Christiansand, 1 15
Copenhagen, 4 5
Dunkirk, 5 9
Gothenburg, 4 16
Hamburg, 5 5
Rotterdam, 9 13
Stavanger, 2 1
Stockholm, 2 12
Dyestuffs (*otherwise undescribed*)
Boston, 5 cks.
St. Petersburg, 3 cs.
Glue—
Abo, 10 cks.
Gothenburg, 20 pks.
New York, 52
Linseed Oil—
Antwerp, 4 t. 11 c.
Bergen, 18
Bordeaux, 3 8
Christiania, 3 13
Christiansand, 2 9
Constantinople, 18
Drontheim, 2 3
Stavanger, 3
Stettin, 20 3
Manure—
Copenhagen, 1 cs. 5 bls.
Dunkirk, 1,000 bgs.
Mineral White—
Stockholm, 50 bgs.
Paint—
Aalsund, 5 cks.
Painters' Colours—
Amsterdam, 5 cks.
Antwerp, 2 10 cs.
Boston, 25
Christiania, 1
Copenhagen, 3 4
Danzig, 20 pks.
Dunkirk, 3
Ghent, 5 30 dms.
Gothenburg, 2
Hamburg, 31 2
Harlingen, 1 1 200 pks.
Helsingfors, 3 25 dms.
Konigsberg, 5
New York, 120 55 pks.
Odessa, 8
Reval, 6
Rotterdam, 1
Stockholm, 1
Wasa, 50
Salt—
Reval, 20 t.
Soap—
Amsterdam, 351 cs.
Tallow—
Reval, 63 pks.
Varnish—
Abo, 3 cs.
Antwerp, 9
Ghent, 2 cks. 1 2 pks.
Gothenburg, 1
Hamburg, 1
Helsingfors, 2
Rotterdam, 25
St. Petersburg, 1
Stockholm, 2
Stettin, 1

GLASGOW.

Week ending September 7th.

Ammonium Carbonate—
Christiania, £32
Ammonium Sulphate—
Amsterdam, 10 t. 5 c. 3 q.
Barbadoes, 9 2 3
Colombo, 9 9
Hamburg, 40
Italy, 51
Samarang, 62 2 3
Sicily, 10 1 3
Sourabaya, 621 13 1
Ammonia (Anhydrous)—
Yokohama, 2 c. 1 q.
Bleaching Powder—
Valparaiso, 17 c.
Boracic Acid—
Kobe, £92
Rotterdam, 52
Yokohama, 90
Borax—
Christiania, £12
Chemicals (*otherwise unaescribed*)
B. Ayres, £20
Coal Products—
Benzine
Bordeaux, £204
Carbolic Acid
Rotterdam, £390
Creosote Oil
Bordeaux, £2,475
Christiania, 40
Naphtha
Christiania, £2
Pitch
Bombay, £40
Christiania, 20
Gothenburg, 267
Tar
Calcutta, £185
Canada, 30
Christiania, 43
Danzig, 203 t.
Gelatine—
New York, 7,500 lbs.
Glucose—
Gothenburg, 3 t. 3 c.
Glue—
Rotterdam, £25
Stockholm, 39
Iodine—
Rotterdam, £255
Lead Acetate—
Boston, £70
Lead Nitrate—
Italy, £110
Linseed Oil—
Colombo, 1 t. 1 c. 2 q.
Kingston, Jam., 2 9 3
Singapore, 2 6 1
Manganese (Recovered)—
Antwerp, £105
Oxalic Acid—
Gothenburg, £30
Manganese Oxide—
New York, £115
Paint—
Amboina, £21 15s.
Bombay, 22
Colombo, 98
Havana, 26
Hong Kong, 211
New York, 80
Valparaiso, 38
Painters' Colours—
Boston, £126
Kingston, Jam., 37
Singapore, 70
Paraffin Wax—
Danzig, 10 t.
Italy, £848
Rotterdam, 200
Sicily, 104
Stockholm, 200
Potassium Bichromate—
Amsterdam, £552
Bombay, 29
Christiania, 23
Paris, 219
Rotterdam, 34
Rouen, 90
Yokohama, 502
Sheep Dip—
B. Ayres, £328
Santa Cruz, 100
Soap—
Bombay, 2 t. 3 c.
Colombo, 7 8 3 q.
Penang, 4 12 2
Shanghai, 5 8
Sodium Bichromate—
Antwerp, 18 c. 3 q.
Flers, 5 t. 1 3
Italy, 4 1 2
Paris, 2 8 1 14 lb.
Rouen, 41 4
Sodium Sulphite—
New York, £4
Starch—
Rotterdam, £290
Varnish—
Christiania, £4
White Lead—
Bombay, £28

TYNE.

Week ending September 2nd.

Alkali—
Amsterdam, 25 t. 10 c. 2 q.
Hamburg, 2 7 2
Rotterdam, 11 4 3
Savona, 11 13 1
Alum—
Rotterdam, 15 t. 7 c.
Ammonium Carbonate—
Halmstad, 1 t. 8 c.
Ammonium Sulphate—
Leghorn, 30 t.
Antimony—
Hamburg, 25 t.
Leghorn, 5
Rotterdam, 7 10 c.
Savona, 10
Arsenic—
Gothenburg, 15 c. 2 q.
Leghorn, 1 t. 19 1
Barium Binoxide—
Leghorn, 20 t. 1 c. 1 q.
Barium Carbonate—
Copenhagen, 2 t. 10 c.
Bleaching Powder—
Antwerp, 5 t. 2 c.
Christiania, 12
Copenhagen, 9 7 3 q.
Gothenburg, 5 3
Hamburg, { 30 5 / 8 cks.
Helsingfors, 50 t. 3 1
Nakskov, 3 3 1
Rotterdam, 4 18 2
Caustic Soda—
Antwerp, 20 t. 2 q.
Copenhagen, 1 14 c. 3
Drontheim, 1 9
Gothenburg, 55 2 2
Helsingfors, 60 7
Odense, 1 14 3
Rotterdam, 5 15
Copperas—
Rotterdam, 2 t. 2 c. 1 q.
Disinfectants—
Bilbao, 14 lbs.
Fluor Spar—
Gothenburg, 52 t. 10 c.
Litharge—
Gothenburg, 4 t. 1 c. 2 q.
Hamburg, 3 18 3
Leghorn, 2 2
Magnesia—
Antwerp, 10 c.
Copenhagen, 2 t. 4 1 q.
Paint—
Antwerp, 2 t. 4 c.
Christiania, 5
Copenhagen, 8 1 q.
Rotterdam, 12
Painters' Colours—
Antwerp, 5 c. 3 q.
Potassium Bichromate—
Helsingfors, 6 c. 2 q.
Red Lead—
Bergen, 1 t. 1 c. 2 q.
Copenhagen, 10 5 1
Gothenburg, 14 6 2
Hamburg, 2 15
Leghorn, 5 4 1
Odense, 1 3
Savona, 1 12 3
Salt Cake—
Helsingfors, 10 bgs.
Soda—
Amsterdam, 10 t.
Antwerp, 10 1 c. 2 q.
Christiania, 4 8
Helsingfors, 13 8 3
Soda Ash—
Gothenburg, 30 t. 12 c. 2 q.
Hamburg, 7 5 3
Sodium Sulphate—
Gothenburg, 285 t. 3 c. 2 q.
Sulphur—
Christiania, 200 t.
Gothenburg, 95
Superphosphate—
Stettin, 1,500 t.

GOOLE.

Week ending August 30th.

Chemicals (*otherwise undescribed*)
Antwerp, 54 cks. 2 dms.
Boulogne, 5
Hamburg, 9 pks.
Coal Products (*otherwise undes.*)—
Antwerp, 102 cks. 3 cs.
Bordeaux, 230 t.
Boulogne, 4 cks.
Ghent, 3
Hamburg, 1
Rotterdam, 2 4
Coal Products—
Benzol
Boulogne, 56 cks.
Pitch
Antwerp, 70 t.
Dyestuffs (*otherwise undescribed*)
Ghent, 5 cs.
Hamburg, { 60 bgs. / 8 cks. 2
Rotterdam, 44
Manure—
Hamburg, 300 bgs.
Rotterdam, 250
Painters' Colours—
Amsterdam, 4 cks.
Antwerp, 7 2 cs.
Calais, 2
Ghent, 10
Rotterdam, 4

GRIMSBY.

Week ending September 2nd.

Caoutchouc—
Esbjerg, 1 ble. 2 pks.
Chemicals (*otherwise undescribed*)
Dieppe, 1 ck.
Malmo, 1
Rotterdam, 6
Coal Products (*otherwise undes.*)—
Dieppe, 83 cks.
Hamburg, 14 btls. 5 pks.
Colours—
Esbjerg, 1 cs.
Manure—
Esbjerg, 3,920 bgs.
Painters' Colours—
Antwerp, 12 cks.
Dieppe, 12
Hamburg, 2 1 cs. 1 dm.
Rotterdam, 3 3

PRICES CURRENT. WEDNESDAY, Sept. 13, 1899

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 & 8/3		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric.. .. .. per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	18	15	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric.. .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¼ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb	0	1	2
,, ·880 = 28° B.. .. .. ,,	0	0	2¾
,, = 24° B.. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate.. .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. .. per ton	12	1	3
,, ,, (grey) Hull .. .. ,,	12	0	0
Aniline Oil (pure) .. .. per lb.	0	0	4¾
Aniline Salt ,, ... ,,	0	0	4¼
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide).. .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. .. nett ,,	5	5	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	11	10	0
Chromium Acetate (crystal).. .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk.. .. .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's.. .. ..per gallon	0	0	8¼
,, 50/90 ,, ... ,,	0	0	10½
Carbolic Acid (crude 60°).. .. .. ,,	0	2	1
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. ..per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¼
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	12	0
Solvent Naphths, 90% at 160° .. ..per gallon	0	1	2½
Copper .. .. per ton	76	16	3
,, Sulphate .. .. ,,	24	10	0
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	29	10	0
,, (distilled S.G. 1260°) .. .. ,,	47	10	0
Iodine .. .. nett, per oz.	0	7	6
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	16	7	6
,, Litharge Flake (ex ship) .. .. ,,	17	10	0
,, Acetate (white ,,) .. .. ,,	21	15	0
,, ,, (brown ,,) .. .. ,,	18	0	0
,, Carbonate (white lead) pure .. .. .. ,,	22	0	0
,, Nitrate .. .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	0	0
,, ,, (grey) (ex ship) .. .. ,,	7	15	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	10	0
Linseed .. .. ,,	23	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	10	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 %.. .. per ton	23	15	0
,, ,, ,, 75/80 % .. .. ,,	18	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	15	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	3 3/16
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % ..nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	3	0	0
,, Acetate (ex-ship) .. .. ,,	13	7	6
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax).. .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	10	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	10	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	7	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	6
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate.. .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	5⅞
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 %.. .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	5	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95%.. .. .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4½
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality.. .. .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	26	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots.. .. .. per ton	150	0	0
Zinc (Spelter) .. .. ,,	23	7	6
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

CHEMICAL TRADE JOURNAL

AND

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

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Trade Advertisements, Announcements in the Directory Columns, and all Advertisements not prepaid, are charged at the Tariff Rates, which will be forwarded on application.

Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

THE CHEMICAL TRADE DIRECTORY.

AS an extra supplement to this week's issue, will be found some specimen pages of the "Chemical Trade Directory," upon which we have been engaged for some considerable time past. The work should have been ready for issue in June last, but circumstances over which we had no control have delayed progress, and, as to unduly hasten matters would undoubtedly have led to incompleteness, we preferred delay as the lesser of the two evils.

As we go to press with this issue, the sheets of the Directory are passing from the printer's hands to the tender mercies of the binder, and we hope before the first week of October is out to have placed copies in the subscribers' hands. The Directory is a volume of four hundred pages, divided into six sections. The first gives a list of the Chemical Manufacturers of the United Kingdom, their specialities, Rail and Water facilities, Telephone numbers, and Telegraphic addresses, while sections two and three are similarly devoted to Merchants, Agents and Brokers, and the Makers of Chemical Plant and Materials. Section four is a list of Assayers, Analysts, Consulting Chemists and Public Samplers, the inclusion of which in a Directory of the Chemical Trade, was deemed imperative.

The detailed particulars given in these four sections, have been obtained in nearly every instance by protracted correspondence with the parties concerned. When we have detected flaws in the information furnished to us, we have worried the writers with further communications until we have been satisfied. We offer our apologies to those manufacturers we have thus troubled, but it was necessary to delete from such a work as this many names obtained from various sources, which have proved unreliable, and this could not be done except by persistent inquiry. The investigations, however, have not been always of a tedious kind, or of a dull nature; there have been humorous passages, and incidents pathetic. Among the latter, as tending to warn the outsider into what Slough of Despond he is likely to wander when he enters the chemical trade, one case perhaps deserves to be recorded. A certain name was found in several lists, which have been published, as a chemical manufacturer. Several letters, inviting his co-operation, elicited no reply. Another letter, enclosing a post card, met with no better fate. But, finally, a prepaid card drew the snail from his shell, and we received the following communication:—"I have no firm. I once did a little in liquid blue. I now make my living by playing a small organ on the streets. Stop sending me your missives: you simply bother me." How are the mighty fallen! What an object lesson for intending manufacturers!

Revenons à nos moutons. Sections five and six of the Directory have been compiled, in the main, from the information given in the first three sections. Section five contains about six hundred different headings of chemical pro-

ducts, with the makers' names under each heading, forming a list which we hope, with the co-operation of the manufacturers themselves, to improve and add to as time goes on.

We wish it to be distinctly understood that the "Chemical Trade Directory" is not intended *solely* for use amongst members of the chemical trade. It will be found useful in many an allied industry, and particularly amongst the buyers and users of chemical products. As proprietors of the *Chemical Trade Journal*, we are often astounded at the queries addressed to us from week to week as to where such and such chemicals can be obtained, or as to who is the maker of some particular form of chemical plant. As in days gone by, we shall continue to give such information to the best of our ability, but our endeavour will be to bring the "Chemical Trade Directory" to such a standard of completeness that our reply may always take the form of a reference to its pages.

THE MINING AND PREPARATION OF KAOLIN.

By T. C. Hopkins.

THE kaolin which occurs in the position of the original feldspar is called residual kaolin. Frequently it happens that this residual material is carried away by the streams and deposited as sediment in a distant locality. It might then be called transported or sedimentary kaolin. The residual kaolin is likely to have considerable quantities of fragmental crystalline quartz, mica and undecomposed spar, with smaller quantities of other minerals, while the transported kaolin is likely to contain iron oxide, lime carbonate and other impurities intimately diffused through the mass. Hence of the two classes the the first is likely to furnish the purest grade of kaolin, as the impurities are nearly all in coarse particles which can be separated by washing. Although in natural condition the second is purer kaolin, such impurities as do occur are likely to be of a nature that will not wash out.

The common method of mining kaolin in the United States is by means of vertical shafts 25 or 30 ft. in diameter, lined with small pieces of lumber about 3 in. thick, 10 or 12 in. wide and 2 ft. long. The ends are cut on a bevel so that when the pieces are laid end to end they make a many-sided polygon roughly approximating a circle. This makes an exceedingly strong wall that will resist the great pressure from the clay and at the same time can be extended to an indefinite depth and then readily removed when desirable. The walls are extended downward by building on below, and when the shaft is sunk as deep as desirable the timbers are removed from the bottom upward and the hole filled with waste as the timbers are removed.

In some places the clay has been mined from open pits, and in a few instances in underground galleries by using heavy timbers, but in most cases where the kaolin does not have a solid rock roof or an excessively heavy loose covering, the first method described will be found to be the most economical and safest, and it is the one most commonly used.

In nearly all cases it is necessary to wash the kaolin before using it, the object being to remove the coarse material and the foreign impurities as far as possible. While this process is carried on by different methods, they are all based on the same principle, that of flotation, in which all the material is thrown into water, and the clay particles being finer and lighter than the foreign admixtures, remain longer in suspension. Hence it is only necessary to increase the length of the troughs through which it is carried or decrease the rate of flow, or both, to get the required degree of fineness in the kaolin, and remove practically all the foreign ingredients. The law that the carrying power of water increases with the sixth power of the velocity is true conversely.

One method used at many of the Pennsylvania and Delaware kaolin washing plants is to feed the crude material with a current of water into a common log washer, consisting of a horizontal beam anywhere from 10 to 25ft. or more in length, revolving in a horizontal rectangular or semi-cylindrical trough of about twice the diameter of the beam. The beam contains numerous short arms or knives which serve to break up the lumps, stir up the material and at the same time move it slowly to the opposite end of the trough from that in which it is thrown. The current of water carrying the clay passes from the log washer into a long trough or series of troughs arranged for convenience side by side. The length of run and rate of flow may be varied to suit the character of the material used and the grade of kaolin required. The greater part of the coarse sand and the larger particles are dropped either in the log washer or close to it, and sand wheels are used to remove this and prevent the troughs from being clogged. The finer sand and the mica flakes are deposited in a long series of troughs, which are commonly about 700ft. in length. These troughs are opened and the settlings scraped out at intervals.

The kaolin carried in suspension by the water flowing through this long zig-zag channel is run into large vats or settling tanks. After standing for some time the clear water is drawn off, and the mud is pumped into a filter press and squeezed by hydraulic pressure. The presses consist of a series of flat frames, sometimes iron, sometimes wood, strung on a central iron pipe. Bags of heavy cloth are placed in the spaces between the frames and connected with the central pipe, which is connected with the pump.

The kaolin comes from the filter press in large cakes either round or square. These are sometimes coiled in a loose roll, sometimes simply doubled over, and are further dried either by storing them in racks where they are exposed to the air for several weeks, or put on a floor or in a tunnel heated by steam or hot air.

With the cheaper grade of clays it is customary to dispense with the use of a filter press, and the clay is either dried in the settling tanks or transferred to a drying floor directly from the tanks.

Another method of washing used to some extent in this country is to put the clay into plungers instead of the log washer, where it is thoroughly disintegrated and stirred up into a slip which is run off through troughs to settling tanks. One of the most modern plants in Pennsylvania has nine plungers, from which the material is run into 12 large cypress settling tanks, where the course material settles and is used for making bricks. The kaolin slip is carried thence into 10 large cypress tanks, whence it is pumped into the filter presses. The clay is removed from the press to the dry floor, heated by the exhaust steam from the engine and located close to the filter presses.

There is evidently much room for improvement in the methods of preparing kaolin for the market, as now practised in the United States. The washing plants are usually rather crude affairs, and proper attention is not always given to the different requirements for special uses and adapting the treatment to them, or closely classifying the products in marketable grades. For turning out high-grade kaolin, as for the paper trade, it is usually easy to get rid of grit by elutriation and settling in the washing troughs, vats, etc., and iron can be avoided by selection of material. The chief trouble is often the presence of almost microscopic plates of mica, which are suspended in the washing process and sometimes cannot be eliminated in this way. This defect is remedied in part in one of the large Pennsylvania refining plants by passing the material through a very fine-meshed silk netting.

The cost of mining and washing kaolin varies considerably according to the character of the deposit worked, some deposits having a heavy overburden while others have none, while some are troubled with water and others are not, etc. One concern in Pennsylvania which produces 40 tons per day, employing 65 men, mines and refines its product at a cost of 8s. to 10s. per ton of refined product, including interest on capital invested. The yield of china clay from crude kaolin varies widely in different localities. Some of the larger producers in Pennsylvania and Delaware give 40 per cent. as an average, but the South Mountain clays yield a higher proportion. In any case the yield is governed to some extent by the degree of refinement required; thus, for some uses, the presence of fine silica is not objectionable, and consequently this mineral is not removed; while for other purposes it must be removed, which consequently lowers the percentage of yield.—*Engineering and Mining Journal.*

Local Acetylene Lighting.—An interesting experiment is under trial at St. Michaels, a small village near Tenterden. The inhabitants desired a system of public lighting, but failed to induce the nearest gas company to extend its mains to the hamlet. They therefore formed a local company, appointed a lady (Mrs. Gordon, of Ingledon) as managing director, and established an acetylene gas works. The installation has been duly completed, and several public buildings, shops, and private houses are already consuming the gas with apparently satisfactory results.

Estimation of Fat in Glue. According to a method communicated by Mr. W. Fahrion to the "Chemiker Zeitung," ten grammes of the sample are broken up and stirred on the water-bath with 40 c.c. of 8 per cent. of alcoholic soda till the alcohol has volatilized. If solution is not complete, more spirit is added and the evaporation repeated. The residue is taken up in hot water, and any insoluble matter which is inorganic in character is dissolved in hydrochloric acid. The whole is heated nearly to the boiling point for half an hour, rinsed in a separating funnel, and, when cold, extracted with ether and allowed to rest over-night. The two liquids are run off, the insoluble oxy-fatty-acids in the funnel dissolved in warm alcohol, mixed with the ethereal solution, evaporated, weighed, ignited, and weighed again. The acids less the ash, give the fat in the glue; but two errors appear—the glycerin of the glycerides is not determined, and the oxy-fatty-acids are slightly soluble in acid. The deficiency however, is very small, and the process gives higher results than that of Kissling.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Improvements in the Manufacture of Salt. J. E. Carroll. 17,835. Sept. 4.
Improvements in the Manufacture of Borax. J. E. Carroll. 17,836. Sept. 4
Improvements in the Manufacture of Gas. W. O. Felt. 17,839. Sept. 4.
Improvements in Perfumery. A Zimmermann. 17,840. Sept. 4.
Manufacture of Cement. W. P. Thompson. 17,853. Sept. 4.
Obtaining Permanent Deposits of Metals on Aluminium. E. Mies and A H. Mies. 17,860. September 4.
Production of Motive Power from Liquid Nitrogen. C. F. Parkhurst and C. Parkhurst. 17,862. September 4.
Purifying Gas. B. E Chollar. 17,888. Sept. 5.
Electrolytically Precipitating Metals in Cementation Vats. A. Rovello. 17,924. September 5.
Substitute for Glucose or Gum for Industrial and Alimentary Purposes. L. Deproit. 17,925. September 5.
Apparatus for Evaporating Liquids. D. B. Morison. 17,963. Sept. 5.
Artificial Ivory, Bone, and the like. J. Westaway. 18,035. Sept. 6.
Artificial Stone and the like. R. Brunk. 18,036. Sept 6.
Manufacture of Chloride of Ammonium from Salt or other suitable Chloride and Sulphate of Ammonium. J. Jeffreys. 18,041. Sept. 6.
Manufacture of Hydrochloric Acid. J. Wetter. 18,049. Sept. 6.
Bacterial Purification of Sewage. W. D. Scott-Moncrieff. 18,061. Sept. 7.
Apparatus for Washing and Scrubbing Gas. A. E. N. Yeadon and J. West. 18,090. September 7.
Generator Oven for Burning Lime and Cement. J. Janssen. 18,101. September 7.
Improvements in the Treatment of Ores. J. H. Lee. 18,128. Sept. 7.
Water Purifying Apparatus. L. Hirt. 18,129. Sept. 7.
Improvements in Glue or in the Method of Using same. H. E. E. Maillard. 18,199. September 8.
Manufacture of Portland and like Cements. C. R. Gostling. 18,203. September 8.
Apparatus for Generating and Applying Oxygen for Promoting Combustion. A. W. Puddington. 18,219. September 9.
Production of Solutions of Cellulose and Natural Silk in Concentrated Zinc Chloride Solution. J. Imray. 18,260. September 9.
Process and Means for the Production of Gas. W. Smethurst. 18,261. September 9.
Carbons specially suitable for the Manufacture of Calcium Carbide. F. Schmidt. 18,263. September 9.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in or connected with Disintegrators or Pulverisers. A. R. McLellan, 174, Hollydale-road, Peckham. Eng. Pat. 19,550. Sept. 14, 1898.

In addition to the usual revolving arms fitted to a central boss, a number of cutters are introduced. Teeth or cutters are fitted on to the boss that carries the arms, which are in a line with teeth or cutters on the end plates of the casing, each of which have a reciprocating motion. A number of cross cutters are also provided, which connect the end plates. An adjustable tube carries off the fine particles, while the imperfectly-ground particles are returned to the disintegrator through a shoot. There are five figures showing the general construction and also the reciprocating motion of the cutters.

Improvements Relating to Siccative Oils and Varnishes. C. Weygang, 17, Park Place, Gravesend. Eng. Pat. 17,478. August 13, 1898.

A siccative oil is first produced according to patents 3,025 and 23,995 of 1894. In brief, this preparation consists of melting resin and petroleum together, adding enough alkali to form a soap. To this, sulphate of zinc, lime, or magnesium is added and the whole heated to about 209°-F., after which the clear oil is allowed to separate and is decanted. Generally about 25% of some vegetable oil, preferably boiled linseed oil, is added. The oil is then finally blown with air until a thick semi-solid product is obtained, the mixture being heated gradually as the viscosity increases, to allow the oxidation to be carried to completion.

Process for Obtaining Yellow Prussiate of Potash as a Bye-product in the Destructive Distillation of Coal. W. Schröder, Wiemelhausen, near Bochum, Germany. Eng. Pat. 19,849. September 19, 1898.

Ferrous chloride is added to the water in the gas scrubbers, in which the ammonia is removed from the crude coal gas. In consequence, ferrous hydrate and ammonium chloride are formed, while the hydrogen sulphide present also produces ferrous sulphide. At the same time the cyanogen compounds combine with the ammonia and form ammonium cyanide, which at once attacks the suspended ferrous hydroxide and sulphide, forming ammonium ferrocyanide. On distilling off the ammonia with lime, calcium ferrocyanide results, which being almost insoluble is precipitated to a large extent. To recover what calcium ferrocyanide there is in solution, the gas, already relieved of ammonia and cyanogen compounds is passed through the residue from the distillation so as to precipitate any excess of caustic lime as carbonate, with the carbon dioxide present in the gas. A solution of ferric chloride is then added, when the calcium ferrocyanide in solution is precipitated as prussian blue. This precipitate, together with the lime mud, is treated by boiling and stirring with a solution of potassium carbonate, whereby calcium carbonate and ferric hydroxide are thrown down, while potassium ferrocyanide goes into solution, and is recovered by concentration.

Improvements in the Production of Solid Materials from Tar and other Substances. C. Dörr, Germersheim, Germany. Eng. Pat. 13,146. June 24, 1899.

When tar is heated, vapours of a varying nature are given off. First comes a whitish vapour, which is succeeded by a greyish-blue which turns to yellow, finally passing back to a grey. This last stage is reached somewhere between 160° and 190° C., and if tar is heated with an excess of sand, gravel, or sawdust to the inception of the yellow-grey to grey stage, a mass resembling dry mortar is produced. If the heating be prolonged for some time, so as to exceed 200° C., a friable mass only is obtained. To avoid partial superheating an open fire is not used, but is supplanted by steam under pressure. Only from 10% to 30% of tar must be used with the solid bodies to be treated.

Improvements in the Manufacture of Dry Alizarine Colours. D. C Bendix, British Alizarine Company Ltd , Silvertown, Victoria Docks, London. Eng. Pat. 23,7 2. November 10, 1898.

Numerous drawbacks have been associated with the various methods suggested for converting alizarine into a solid which can readily be restored to the pasty condition. By the use of wood fibre, however, it is claimed that this end is achieved economically and without introducing difficulties in the use of the product in the dye house. About 20 parts of dry wood fibre are mixed into a paste with water, and 100 parts of 20% commercial alizarine. The mixture is filter-pressed, and the cakes dried at 50° to 60° C., when they may be broken into lumps of convenient size.

GOLD OUTPUT IN THE RAND.

ANOTHER RECORD.

THE output from the Witwatersrand district during the past month (in bullion ounces), as cabled by the Chamber of Mines of the South African Republic, amounts to 459,709 oz., as against 456,474 oz for July and 376,911 oz for the corresponding month of 1898. From the outside districts 22,399 oz are reported, as against 22,019 oz. for July and 21,374 oz. for the corresponding month last year. The total return, therefore, made to the Chamber amounts to 482,108 oz., as compared with 478,493 oz. for the previous month, an increase of 3,615 oz. The following are the monthly returns from the Rand district alone since the beginning of 1895 :—

	1895.	1896.	1897.	1898.	1899.
	oz.	oz.	oz	oz.	oz.
January	177,463	148,178	209,832	313,826	410,145
February	169,295	167,018	211,000	297,975	404,335
March	184,945	173,952	232,067	325 907	441,578
April	186,323	176,707	235,698	335,125	439,111
May	194,580	195,008	248,305	344,160	444,933
June	200,941	193,640	251,529	344,670	445,763
July	199,453	203,873	242,479	359,343	456,474
August	203,573	213,418	259,603	376,911	459,709
September	194,764	202,561	262,150	384,080	—
October	192,652	199,889	274,175	400,791	—
November	195,218	201,113	297.124	393,310	—
December	178,428	206,517	310,712	419,504	—
Total	2,277,635	2,281,874	3,034,674	4,295,602	3,502,048

NEW CHEMICAL LABORATORY FOR MIDDLEWICH.—The honorary secretary of the Victoria Technical Schools, Middlewich (Mr. F. B. Cook), has received a communication from Dr. Mond, expressing his willingness to defray the cost of providing and fitting up a chemical laboratory in connection with this institution. Dr. Mond gave a most substantial sum to the building fund of the schools, and this additional liberality will be greatly appreciated. The County Council promise lectures, and a number of students are ready to join the classes.

Official Memoranda.

(From the Board of Trade Journal).

NEW BARBADOES TARIFF.

THE Board of Trade have received a copy of the new customs tariff of Barbadoes, which was to come into force on the 26th June, 1899, and remain in force until the 31st December, 1899 The following abstract shows the rate of import duties leviable on goods imported into the colony under the new tariff :—

ARTICLES.	DUTY. s.	d.
Candles (other than tallow), per 100 lbs.	12	6
„ (tallow), per 100 lbs.	6	3
Cement, per barrel	2	6
Manures (other than raw cattle dung), per ton	8	4
„ (raw cattle dungs), see free list, per ton	1	0
Oil meal and cakes, per 100 lbs	0	11½
Salt, per ton	12	0
Soap, per 100 lbs.	3	0
Tallow, per 100 lbs.	3	0

FREE LIST.

Fish offal, bones, horns, and dried blood, all kinds of gunpowder and explosives.

Section 3 of the new Tariff Act enacts that the following articles, the product of the soil or industry of the United States of America, of Great Britain and the British Possessions, and of such other countries as shall be entitled by convention with Great Britain to the benefit of the most-favoured-nation treatment, imported into the Colony, or which may be in bond when this Act comes into operation, shall be admitted free of duty, viz. :—Candles of tallow, corn or maize, corn meal, cottonseed oil, machinery for electric lighting, pitch and tar, rosin, and tallow.

SALT AND SODIUM SULPHATE IN SIBERIA

The production of salt in Siberia is very far from adequate to the demand, and it is found necessary to import considerable quantities of the commodity from European Russia (*via* Odessa and Vladivostock) from Mongolia and other countries. In the ports on the Pacific seaboard foreign salt is imported free of duty. In such districts of Siberia as possess workable salt deposits the placing of the salt on the market is often greatly hindered by the bad state of the roads, when there are any, and, as a consequence, prices rule high. It is true that the State has established in various localities salt storehouses, whence the inhabitants may supply their needs at a comparatively moderate cost. Even so, however, prices vary greatly from place to place.

In Western Siberia, the only local sources of salt are the innumerable salt lakes scattered over the Government of Tobolsk, in the south-west of the Government of Tomsk, and in the provinces of Akmolinsk and Semipalatinsk. In very hot summers, salt deposits on the lake shores to a thickness of 4 in.

As to the northern portion of this basin, in the Barabinsk and Kulundinsk steppes, no one lake yields common salt free from the admixture of other compounds, such as sodium sulphate In the southern portion of the basin, on the other hand, in the waterless steppes of Akmolinsk and Semipalatinsk, the lakes yield a very pure salt, immediately available for edible purposes. Among the most notable of these lakes is that of Karyakovsk, which extends over an area of 9 square miles ; the portion covered by salt deposits measures about 4 square miles, and in the middle of the lake the thickness of the salt layers exceeds 40 in. In 1896 there were 11,834 tons of salt taken from this lake, but this is by no means the greatest amount produced in one year. Moreover, the official statistics represent only about a quarter of the actual output, as the Imperial authorities allow the Kirghiz nomads who range these southern steppes to take from the lakes as much salt as they choose.

Mention must also be made of the Borovie and Burlinsk lakes in the south-west of the Government of Tomsk, in the so-called "salt steppe." The total length of the shores of Lake Burlinsk exceeds 19 miles. The inhabitants of the neighbouring country, after selling their grain at Pavlodar, usually take salt as a return freight, and the commodity finds its way thence far into Eastern Siberia.

Glauber's salts are got from the Great and Little Marmishansk lakes in the same Government (Tomsk), 125 miles south-west of Barnaul. The total area of these two lakes is about 2½ square miles, and the layers of sulphate attain a thickness of 2 ft. even at a couple of hundred feet from the shore. The annual production averages 1,640 tons, part of which goes to the soda works at Barnaul, part is used for smelting ores in the Altai, and the remainder in glass manufacture.

Eastern Siberia is rich in common salt, which is mainly got from rock salt deposits. These occur, however, in sparsely populated districts, and are at present worked only on a small scale. In the Governments of Yenisseisk and Irkutsk brine springs were tapped at Tumanshetsk (20 ft. deep), Troitsk, Ust, Kut, &c. Numerous bitter-salt lakes occur in the first-named Government ; while in Yakutsk, in the Vilyuisk District, are three rock salt deposits.

According to annual statistics of salt production in Siberia from 1887 to 1896 (both years inclusive), the Siberian output would appear to average 35,000 tons. The labour statistics shows that in 1894, in the salt works of the whole of Siberia, 1,581 workpeople were employed, most of whom were convicts, whose good conduct had secured them a mitigated form of penal servitude.

A "GASSING" FATALITY.

SUCCESSFUL CLAIM FOR COMPENSATION.

HIS Honour Judge Jones, sitting at Bury on Wednesday, as arbitrator under the Workmen's Compensation Act, had before him a claim brought by Margaret Lee, widow, of 57, Baker-street, Elton, against the Bury Corporation, to recover compensation for the death of her husband, John Lee. Mr. Cobbett, Manchester, appeared for the applicant, and Mr. Langdon for the Corporation

At the outset Mr. Langdon said that the Corporation had arrived at the amount which the applicant would be entitled to assuming that the Corporation's liability was satisfactorily made out. The amount was £247. 11s. 7d.

The facts of the case, as detailed by Mr. Cobbett, were that the late John Lee was employed as a sulphur maker at the Bury Corporation Gasworks, and part of his work was to break down the walls of a sulphur kiln when anything seemed to be going wrong. The task of opening the kiln was a dangerous one, and the men engaged in the operation were sometimes "gassed." On January 4th last, Lee went to the kiln at about eight o'clock in the morning—for what purpose was not known—and a few minutes later he was found lying on a heap of ashes, some distance from the kiln, unconscious, whilst a hole had been made in the brickwork of the sulphur kiln. Lee was taken into the office at the works, but never recovered consciousness, and died in about half an hour. Mr. Cobbett added that it was suggested in the pleadings for the defence that the Workmen's Compensation Act did not apply in this case, and another defence was that the claim had not been made within six months of the accident.

Mr. Langdon : We abandon the latter defence.

Mr. Cobbett, referring to the question whether a gasworks was a factory within the meaning of the Act, argued that under the Workmen's Compensation Act "a factory" meant the same as under the Factory and Workshops Acts, 1878 to 1891, and under the Factory Acts any premises where manual labour was exercised by way of trade for purposes of gain were a factory.

Evidence having been given as to the facts of the case, Mr. Langdon said the Corporation had not entered lightly into this litigation, and they had done so mainly because they did not want to be held responsible for the death of a workman who deliberately, and in direct contravention of the rules of the works, went into danger. Lee had no business to go to the sulphur kiln alone on this occasion, and, therefore, the accident did not arise out of, and in the course of, the man's employment. As to the gasworks being a factory, Mr. Langdon argued that the sulphur house was entirely separate from the gasworks, and the sulphur-making and gas-making were separate operations, and no mechanical power was used in making the sulphur.

His Honour decided against Mr. Langdon on the latter point

Evidence having been given by the manager of the gasworks and other witnesses, to the effect that Lee had been warned against going to the sulphur kiln alone, His Honour held that the works were a factory under the Act, that Lee came by his death in the course of his employment, and that the death was not due to his wilful misconduct. He therefore gave an award for £247. 11s. 7d., with costs.

*** There are many points in this case which are worthy of discussion by all interested in the Gas and Chemical industries. The works, of course, are inspected under the Alkali, &c. Works Act. We shall be pleased to receive criticisms and opinions (not necessarily for publication).—ED. *C. T. J.*

LIGNOROSINE.—This is a preparation now being offered to wool dyers as an assistant mordant to bichromate of potash, to be used with logwood, anthracene brown, alizarine and mordant dyes in general. It is obtained from the waste liquors left after treating wood in the manufacture of wood pulp for paper making, by means of soda or sulphite of soda. It consists essentially of the gummy and resinous matters of the wood recovered by a special process. As a mordant it works well, rather better indeed than the commonly used tartar, but scarcely as well as lactic acid. It is cheap, which is a recommendation in its favour.

Correspondence.

*** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

TUNGSTATE BLUE.

(To the Editor of the Chemical Trade Journal).

SIR,—I shall be pleased to learn from any of your readers, who are the makers of tungstate blue, and for what purpose or purposes this blue is mostly used. Yours, etc.,

Sept. 19th, 1899. COLOURMAN.

[Replies may be addressed to "Colourman," c/o the *Journal*.—ED. *C.T.J.*]

BRITISH ASSOCIATION MEETING.

THE PRESIDENT'S ADDRESS.

FOR the first time in its history the British Association met on Wednesday last week at Dover, when the new President, Sir Michael Foster, was introduced by Professor Crookes. In the opening passages of his address, Sir Michael referred to the indebtedness of the Association to the late Sir Douglas Galton. He then proceeded to review the essential features of scientific progress during the past century. After touching upon the discovery of oxygen and the state of chemical knowledge in 1799, and describing the birth of electrical science in the same year, he pictured the state of geology, and instanced the development of the biological sciences.

In taking leave of the past, Sir Michael said:—I am content to have pointed out that the two great sciences of chemistry and geology took their birth, or at least began to stand alone, at the close of the last century, and have grown to be what we know them now within about a hundred years, and that the study of living beings has within the same time been so transformed as to be to-day something wholly different from what it was in 1799. And, indeed, to say more would be to repeat almost the same story about other things. If our present knowledge of electricity is essentially the child of the nineteenth century, so also is our present knowledge of many other branches of physics. And those most ancient forms of exact knowledge, the knowledge of numbers and of the heavens, whose beginning is lost in the remote past, have, with all other kinds of natural knowledge, moved onward during the whole of the hundred years with a speed which is ever increasing. I have said, I trust, enough to justify the statement that in respect to natural knowledge, a great gulf lies between 1799 and 1899. That gulf, moreover, is a two-fold one; not only has natural knowledge been increased, but men have run to and fro spreading it as they go. Not only have the few driven far back round the full circle of natural knowledge the dark clouds of the unknown which wrap us all about, but also the many walk in the zone of light thus increasingly gained. If it be true that the few to-day are, in respect to natural knowledge, far removed from the few of those days, it is also true that nearly all which the few alone knew then, and much which they did not know, has now become the common knowledge of the many. The story of natural knowledge, of science, in the nineteenth century, as, indeed, in preceding centuries, is a story of continued progress. There is in it not so much as a hint of falling back, not even standing still. What is gained by scientific inquiry is gained for ever; it may be added to, it may seem to be covered up, but it can never be taken away. Confident that the progress will go on, we cannot help peering into the years to come and straining our eyes to foresee what science will become and what it will do as they roll on. While we do so, the thought must come to us, Will all the increasing knowledge of nature avail only to change the ways of man—will it have no effect on man himself? The material good which mankind has gained and is gaining through the advance of science is so imposing as to be obvious to every one, and the praises of this aspect of science are to be found in the mouths of all. Beyond all doubt science has greatly lessened and has markedly narrowed hardship and suffering; beyond all doubt science has largely increased and has widely diffused ease and comfort. The appliances of science have, as it were, covered with a soft cushion the rough places of life, and that not for the rich only, but also for the poor. So abundant and so prominent are the material benefits of science that in the eyes of many these seem to be the only benefits which she brings. She is often spoken of as if she were useful and nothing more, as if her work were only to administer to the material wants of man. Is this so?

THE TRIUMPHS OF SCIENCE—INTELLECTUAL TRIUMPHS.

We may begin to doubt it when we reflect that the triumphs of science which bring these material advantages are in their very nature intellectual triumphs. The increasing benefits brought by science are the results of man's increasing mastery over nature, and that mastery is increasingly a mastery of mind; it is an increasing power to use the forces of what we call inanimate nature in place of the force of his own or other creatures' bodies; it is an increasing use of mind in place of muscle.

When we reflect on the potency of

THE DISCIPLINE OF SCIENTIFIC INQUIRY,

we cease to wonder at the progress of scientific knowledge. The results actually gained seem to fall so far short of what under such guidance might have been expected to have been gathered in, that we are fain to conclude that science has called to follow her, for the most part, the poor in intellect and the wayward in spirit. Had she called to her service the many acute minds who have wasted their strength struggling in vain to solve hopeless problems, or who have turned their energies to things other than the increase of knowledge; had she called to her service the many just men who have walked straight without the need of a rod to guide them, how much greater than it has been would have been the progress of science, and how many false teachings would the world have been spared! To men of science themselves, when they consider their favoured lot, the achievements of the past should serve not as a boast, but as a reproach. If there be any truth in what I have been urging, that the pursuit of scientific inquiry is itself a training of special potency, giving strength to the feeble, and keeping in the path those who are inclined to stray, it is obvious that the material gains of science, great as they may be, do not make up all the good which science brings or may bring to man. We especially, perhaps, in these later days, through the rapid development of the physical sciences, are too apt to dwell on the material gains alone. As a child in its infancy looks upon its mother only as a giver of good things, and does not learn till in after days how she was also showing her love by carefully training it in the way it should go, so we, too, have thought too much of the gifts of science, overlooking her power to guide. Man does not live by bread alone, and science brings him more than bread. It is a great thing to make two blades of grass grow where before one alone grew; but it is no less great a thing to help a man to come to a just conclusion on the questions with which he has to deal. We may claim for science that while she is doing the one, she may be so used as to do the other also. The dictum, that science is organised common sense, may be read as meaning that the common problems of life which common people have to solve, are to be solved by the same methods by which the man of science solves his special problems. It follows that the training which does so much for him may be looked to as promising to do much for them. Such aid can come from science on two conditions only. In the first place, this her influence must be acknowledged; she must be duly recognized as a teacher no less than as a hewer of wood and a drawer of water. And the pursuit of science must be followed, not by the professional few only, but, at least, in such measure as will ensure the influence of example, by the many.

The history of the past gives us many examples of

THE BROTHERHOOD OF SCIENCE.

In the revival of learning throughout the sixteenth and seventeenth centuries, and some way on into the eighteenth century, the common use of the Latin tongue made intercourse easy. In some respects in those earlier days science was more cosmopolitan than it afterwards became. In spite of the difficulties and hardships of travel, the men of science of different lands again and again met each other face to face, heard with their ears, and saw with their eyes what their brethren had to say or to show. The Englishman took the long journey to Italy to study there; the Italian, the Frenchman, and the German wandered from one seat of learning to another; and many a man held a chair in a country not his town. There was help, too, as well as intercourse. The Royal Sociey of London took upon itself the task of publishing nearly all the works of the great Italian, Malpighi, and the brilliant Lavoisier, two years before his own countrymen, in their blind fury, slew him, received from the same body the highest token which it could give of its esteem. In these closing years of the nineteenth century, this great need of mutual knowledge and of common action felt by men of science of different lands is being manifested in a special way. Among these, Sir Michael referred to the index of scientific literature, which is now in progress, and the proposed Witenagemote of Science, which will probably take definite shape at the congress to be held at Wiesbaden next month.

Looking back, then, in this last year of the eighteen hundreds, on the century which is drawing to its close, while we may see in the history of scientific inquiry much which, telling the man of science of his short-comings and his weakness, bids him be humble, we also see much, perhaps more, which gives him hope.

HOPE IS ONE OF THE WATCHWORDS OF SCIENCE.

In the latter-day writings of some who know not science, much may be read which shows that the writer is losing or has lost hope in the future of mankind. There are not a few of these; their repeated utterances make a sign of the times. Seeing in matters lying outside

science few marks of progress and many tokens of decline or of decay, recognising in science its material benefits only, such men have thoughts of despair when they look forward to the times to come. But if there be any truth in what I have attempted to urge, if the intellectual, if the moral influences of science are no less marked than her material benefits, if, moreover, that which she has done is but the earnest of that which she shall do, such men may pluck up courage and gather strength by laying hold of her garment. We men of science at least need not share their views or their fears. Our feet are set, not on the shifting sands of the opinions and of the fancies of the day, but on a solid foundation of verified truth, which by the labours of each succeeding age is made broader and more firm. To us the past is a thing to look back upon, not with regret, not as something which has been lost never to be regained, but with content, as something whose influence is with us still, helping us on our further way. With us, indeed, the past points not to itself but to the future; the golden age is in front of us, not behind us; that which we do know is a lamp whose brightest beams are shed into the unknown before us, showing us how much there is in front and lighting up the way to reach it. We are confident in the advance because, as each one of us feels that any step forward which he may make is not ordered by himself alone and is not the result of his own sole efforts in the present, but is, and that in large measure, the outcome of the labours of others in the past, so each one of us has the sure and certain hope that as the past has helped him, so his efforts, be they great or be they small, will be a help to those to come.

SECTION B—CHEMISTRY.

There was a large attendance of both chemists and biologists in the School of Art, on Friday, 15th inst., to listen to the address of the president of the section, Dr. Horace T. Brown, F.R.S, on "The Assimilation of Carbon by the Higher Plants." He said:—We have become so accustomed to the idea that the higher plants derive the whole of their carbon from atmospheric sources that we are apt to forget how very indirect is the nature of much of the experimental evidence on which this belief is founded. There can, of course, be no doubt that the primary source of the organic carbon of the soil, and of the plants growing on it, is the atmosphere; but of late years there has been such an accumulation of evidence tending to show that the higher plants are capable of being nourished by the direct application of a great variety of ready-formed organic compounds, that we are justified in demanding further proof that the stores of organic substances in the soil must necessarily be oxidized down to the lowest possible point before their carbon is once more in a fit state to be assimilated. It was the hope of gaining more direct evidence on this important question which led me some time ago to attack the problem experimentally, in conjunction with Mr. F. Escombe, the resources of the Jodrell Laboratory at Kew having been kindly put at our disposal by Sir W. Thiselton Dyer and Dr. D. H. Scott. Up to the present time our experiments have not been carried far enough to enable us to give a positive answer to the main question, but they have already suggested a new method of attack which will enable us in the future to determine, with a fair amount of certainty, whether any particular plant, growing under perfectly natural conditions, derives any appreciable portion of its carbon from any other source than the gaseous carbon dioxide of the atmosphere.

Up to within a few years ago we had no means of even approximately determining the actual rate at which the assimilatory process goes on in a plant other than that afforded by its increase in weight in a given time. Such experiments, necessarily extending over weeks or months, can, at the best, only give us certain average results, and consequently afford no measure of the activity of assimilation under fixed conditions of insulation. In the year 1884 Sachs found that the accumulation of freshly assimilated material in a leaf may, under favourable conditions, go on so rapidly as to give rise to a very appreciable increase of weight in the leaf lamina within the short space of a few hours. By observing at different times of the day the varying dry weight of equal areas of large leaves, Sachs obtained an approximate measure of the rate of the assimilatory process which he could express in terms of actual number of grams of substance assimilated by a unit area of leaf in unit of time. In this manner he was able to show, for instance, that a sunflower leaf, while still attached to the plant, increases in weight when exposed to bright sunshine at the hourly rate of about one gram per square metre of leaf area. In the case of similar leaves detached from the plant, and of course under conditions in which the products of assimilation were entirely accumulated in the leaf, he found an increase in weight of rather more than 1½ gram per square metre per hour. It is evident that a far better plan of measuring the rate of assimilation under varying conditions would be the estimation of the actual amount of carbon dioxide entering a given area of the leaf in a certain time, and it was to the perfection of a method of this kind that Mr. Escombe and I first turned our attention.

ASSIMILATION OF CARBON DIOXIDE.

It will be well to consider here the amount of carbon dioxide which must enter a leaf in a given time in order to produce an influence on its weight comparable with that indicated by the Sachs method of weighing definite areas. For this purpose I will consider a leaf with which we have made many experiments—that of *Catalpa bignonioides*. It is a very symmetrical leaf and a good assimilator, and since the intake of carbon dioxide takes place only on the under side, the question to which I wish to draw your attention can be stated in a simple manner. When such a leaf is subjected to a modified form of the half-leaf weighing method of Sachs, it may, under favourable conditions, show an increase in dry weight equal to about one gram per square metre per hour. Since this increase in weight is due almost entirely to the formation of carbohydrates, we can calculate with a close approximation to accuracy the corresponding amount of carbon dioxide. This will of course depend, within certain narrow limits, on the nature of the carbohydrate formed. The formation of a gram of starch requires 1·628 grams of carbon dioxide, whilst an equal amount of a $C_6H_{12}O_6$ or a $C_{12}H_{22}O_{11}$ sugar require 1·466 and 1·543 grams respectively. From the knowledge we possess of the nature of the carbohydrates of the leaf, we are quite sure that the mean of these values, that is 1·545 grams, must be very near the truth. This amount corresponds to 784 cc. of carbon dioxide at normal temperature and pressure, which must represent the volume extracted by the square metre of leaf surface in one hour from air containing only three parts of carbon dioxide in 10,000, supposing the method of leaf weighing to give correct results. The absorbing apparatus which was finally adopted is a modification of one used by Reiset, with which determinations can certainly be made to within ·02 parts of carbon dioxide in 10,000 of air. In our experiments the air was in all cases taken from a height of 4ft. 6in. from the ground, the amounts aspirated varying from 100 to 500 litres. The actual intake of carbon dioxide is determined by enclosing the entire leaf in specially constructed air-tight glazed cases, through which a sufficiently rapid air stream is passed. These cases are so arranged that the leaf can be enclosed whilst still attached to a plant which is growing out in the open under perfectly natural conditions, and some of them are sufficiently large to take the entire leaf of a sunflower. The carbon dioxide content of the air is determined both before and after its passage through the apparatus, and since the amount of air passed is known we have all the *data* requisite for determining the actual amount retained by the leaf. An experiment generally lasts from five to six hours, and the carbon dioxide fixed in this time may amount to 150 cc., or more, the actual error of determination being very small indeed. In order to show the kind of results obtained in this manner I will give one or two examples. A leaf of the sunflower, having an area of 617·5 sq. c.m., was enclosed in its case whilst still attached to the plant, and was exposed to the strong diffused light of a clouded sky for five and a half hours, air being passed over it at the rate of nearly 150 litres per hour. The content of the air in carbon dioxide as it entered the apparatus was 2·80 parts per 10,000, and this was reduced to 1·74 parts per 10,000 during its passage over the leaf. This corresponds to a total absorption of 139·95 cc. of carbon dioxide, or to an intake of 412 cc. per square metre per hour. If we assume that the average composition of the carbohydrates formed is that of a $C_6H_{12}O_6$ sugar, the above amount of carbon dioxide corresponds to the formation of 0·55 gram of carbohydrate per square metre per hour. In another experiment made with the leaf of *Catalpa bignonioides* in full sunlight the amount of carbon dioxide in the air passing over the leaf fell from 2·80 to 1·79 parts per 10,000, the total hourly intake for the square metre being 344·8 cc. When this is corrected for tension it corresponds to an assimilation in free air of 0·55 gram of carbohydrate per square metre per hour. This brings me to another interesting point, the enormous influence which slight changes in the carbon dioxide content of the air exert on the rate of its ingress into the assimilating leaf. With a constant illumination, either in direct sunlight or diffuse light, the assimilatory process responds to the least variation in the carbon dioxide, and within certain limits, not yet clearly defined, the intake of that gas into the leaf follows the same rule as the one which holds good with regard to the absorption of carbon dioxide by a freely exposed surface of a solution of caustic alkali; that is to say, from the air containing small but variable quantities of carbon dioxide the intake is directly proportional to the tension of that gas.

OPEN DIFFUSION OR GASEOUS OSMOSIS?

The penetration of the highly-diluted carbon dioxide of the atmosphere into the interior air spaces of the leaf on its way to the active centres of assimilation must, in the first instance, be a purely physical process, and no explanation of this can be accepted which does not conform to the physical properties of the gases involved. Since there is no mechanism in the leaf capable of producing an ebb and flow of gases within the air spaces of the mesophyll in any way comparable with the movements of the tidal air in the lungs of animals; and since also the arrangement of the stomatic openings is such as to effect a rapid equalisation of pressure within and without the leaf, we must search for the cause of the gaseous exchange, not in any mass movement, but in some form of diffusion. For many

years there has been much controversy as to which form of gaseous diffusion is the more active in producing the natural interchanges of gases in the leaf. In 1895, however, Mr. F. F. Blackman brought forward two remarkable papers which opened up an entirely new aspect of the subject. After showing the fallacy underlying certain experiments of Boussingault, which had been generally supposed to prove the osmotic theory of exchange, Mr. Blackman gave the results of his own experiments with a new and beautifully constructed apparatus, which enabled him to measure very minute quantities of carbon dioxide given off from small areas of the upper and under sides of a respiring leaf, and also to determine the relative intake of carbon dioxide by the two surfaces during assimilation in air artificially charged with that gas. The conclusions drawn are that respiratory egress, and assimilatory ingress of carbon dioxide, do not occur in the upper side of a leaf if this is devoid of stomatic openings, and that when these openings exist on both the upper and under sides the gaseous exchanges of both physiological processes are directly proportional to the number of stomata on equal areas, hence in all probability the exchanges take place only through the stomata. These observations of Mr. Blackman are of such far-reaching importance, and lead to such remarkable conclusions with regard to the rate of diffusion of atmospheric carbon dioxide, that we felt constrained to inquire into the matter further, and for this purpose we employed a modified form of the apparatus which we have used throughout our work on assimilation. Our results, on the whole, are decidedly confirmatory of Mr. Blackman's observations. The side of a leaf which is devoid of stomatic openings certainly neither allows any carbon dioxide to escape during respiration, nor does it permit the ingress of that gas when the conditions are favourable for assimilation. On the other hand, when stomata exist on both the upper and under sides of a leaf, gaseous exchanges take place through both surfaces, and, as a rule, in some sort of rough proportion to the distribution of the openings. There is, however, under strong illumination, a greater intake of carbon dioxide through the upper surface than would be expected from a mere consideration of the ratio of distribution of the stomata. Nevertheless, the general connection between gaseous exchange and distribution of stomata is so well brought out that we must regard it as highly probable that these minute openings are the true paths by which the carbon dioxide enters and leaves the leaf. We must now look at certain physical consequences which proceed from this assumption, and see how far they can be justified by the known or ascertainable properties of carbon dioxide at very low tensions. The leaf of catalpa bignonioides is hypostomatic, and therefore takes in carbon dioxide only by its lower surface. Under favourable conditions it is quite possible, during assimilation, to obtain an intake of atmospheric carbon dioxide into this leaf at the rate of 700 cc. per square metre per hour (measured at 0° and 760 mm.), corresponding to an average linear velocity of the carbon dioxide molecules of 3·8 centimetres per minute, supposing the intake to be distributed evenly over the whole of the lower leaf surface. This velocity is almost exactly one-half of that at which carbon dioxide will enter a freely exposed surface of a solution of caustic alkali. But if the intake of the gas is confined to the stomatic openings of the leaf, its velocity of ingress must be very much greater than this. We have carefully determined the number of stomata occurring on a given area of this particular leaf, and also the dimensions of the openings, and find that the total area of the openings, supposing them to be dilated to the fullest possible extent, amounts to just under one per cent. of the leaf surface. It follows from this that the average velocity of the atmospheric carbon dioxide in passing through these openings must be 380 centimetres per minute—that is to say, just 50 times greater than into a freely exposed absorbent surface of alkali. In other words, supposing every one of the stomatic openings of this leaf could be filled up with a solution of caustic alkali, the absorbent power of the leaf as a whole would only be 1-50th of what it actually is when assimilating. In order to gain some idea of what is actually possible in the way of stomatic diffusion in an assimilating leaf, we must know something of the actual rate at which atmospheric carbon dioxide can be made to pass into a small chamber containing air at the outside tension, but in which the carbon dioxide is kept down almost to the vanishing point by some rapid process of absorption; and we must also determine the influence of varying the size of the aperture through which the diffusion takes place. Our attempts to answer these questions experimentally have led us into a long investigation, which promises to be of wider interest than we had first imagined. The speed at which the diffusion of atmospheric carbon dioxide takes place through unit area of an orifice of 1 mm. in diameter is just 16 times as fast as it is through unit area of an aperture of 20 mm.; and since we know that the rate of passage in the latter case is two and a half times greater than the absorption rate of an equal area of a freely exposed surface of a solution of caustic alkali, we arrive at the conclusion that, under the particular conditions of our experiment, the diffusion rate through an aperture of 1 mm. is 40 times greater than the rate of absorption of a free alkaline surface of equal area. This corresponds to an actual average rate of passage of the molecules of the atmospheric carbon dioxide of about 266 centimetres per minute. Now, we have already seen, in the case of a catalpa leaf, that if the gaseous exchange during assimilation goes on only through the stomatic openings, we require a *minimum* velocity of something like 380 centimetres per minute, a velocity which we are sensibly approaching in our experiments with apertures of about 1 mm. in diameter. But the effective area of a stomatic opening of the catalpa leaf is equal to that of a circle with a diameter of less than 1-100 mm., and since our experiments indicate a very rapid increase in the velocity of diffusion as the aperture is diminished, it is clear that no difficulty, as regards the physics of the question can be raised against the idea that atmospheric carbon dioxide reaches the active centres of assimilation by a process of free diffusion through the leaf stomata.

CHLOROPHYLL AND RADIANT ENERGY.

One of the most interesting problems connected with plant assimilation relates to the efficiency of a green leaf as an absorber and transformer of the radiant energy incident upon it. It is already well known that the actual amount of energy stored up in the products of assimilation bears a very small proportion to the total amount reaching the leaf; in other words, the leaf, regarded from a thermo-dynamic point of view, is a machine with a very low "economic coefficient." The measure of the two principal forms of work done within the leaf, the vaporisation of the transpiration water on the one hand, and the reduction of carbon dioxide and water to the form of carbohydrates on the other, can be ascertained by modifying our experiments in such a manner as to allow the transpiration water to be determined, as well as the intake of carbon dioxide. From what I have said previously about the effect of increased tension of carbon dioxide on the rate of assimilation, it must follow that the "efficiency" of a leaf as regards the permanent storage of energy must, *cæteris paribus*, be increased when small additions of that gas are made to the surrounding air. In one such instance, in which the air had been enriched with carbon dioxide to the extent of about 5½ times the normal amount, it was estimated that the "efficiency" of the leaf for bright sunshine was raised from 0·5 to 2·0 per cent. We must probably seek for the first and simplest stages of the assimilatory process in the interaction of the reduced constituents of the chlorophyll and the elements of carbon dioxide and water, the combinations so formed being again split up in another direction by access of energy from without. The failure of all attempts to produce such a reaction under artificial conditions is, I think, to be accounted for by the neglect of one very important factor. We are dealing with a reaction of a highly endothermic nature, which is probably also highly reversible, and on this account we cannot expect any sensible accumulation of the products of change unless we employ some means for removing them from the sphere of action as fast as they are formed. In the plant this removal is provided for by the living elements of the cell, by the chloroplast, assisted no doubt by the whole of the cytoplasm. We have here, in fact, the analogue of the chemical sensitizers of a photographic plate, which act as halogen absorbers, and so permit a sensible accumulation of effect on the silver salts. When we have succeeded in finding some simple chemical means of fixing the initial products of the reduction of carbon dioxide, then, and then only, may we hopefully look forward to reproducing in the laboratory the first stages of the great synthetic process of nature on which the continuance of all life depends.

Professor Thorpe, F.R.S., as president of the Chemical Society, proposed a vote of thanks to Dr. Brown. This was seconded by Professor Armstrong, F.R.S., who had been a fellow-student with the author in the laboratory of the late Sir Edward Frankland.

THE STABILITY OF OXALIC ACID SOLUTIONS.—Although the literature of this subject is somewhat voluminous, says the "Analyst," the results appear inconclusive and contradictory, and the varying effects of light, moulds, and preservative agents upon standardized oxalic acid of different strengths have not been completely elucidated. For his own experiments, Mr. W. P. Jorissen has prepared pure oxalic acid by re-crystallization, rejecting the first and last 10 per cent. of the product. The solutions were kept for fifty to one hundred days in bottles, which had been cleaned in boiling water in order to sterilize them and to dissolve superficial alkali, and they were finally titrated with permanganate or with standard soda. His investigations prove that normal oxalic acid is not permanent in light. In the dark, and in the absence of ferments, a solution remains unchanged even when only centinormal in strength. Fifty cc. of sulphuric acid per litre is an effectual preservative in the dark against moulds and against decrease in strength. One gramme of boric acid is useless; 2 grammes only act efficiently in cold weather. A decinormal solution in 12·4 or 25 per cent. alcohol loses strength in thirty-six days, even in the dark. In daylight, sulphuric acid and boric acid both increase the speed of oxidation; manganese sulphate acts similarly in darkness and in light.

Trade Notes.

Obituary.—The death of Senator Scheurer-Kestner, who took so important a part in bringing about the re-opening of the Dreyfus case, is reported from Paris. Auguste Scheurer-Kestner was born at Mulhouse in February, 1833. He studied chemistry, and became the director of the manufactory of his father-in-law, M. Kestner, who died in 1870.

American Phosphate Shipments.—The total phosphate movement in the United States for the first half of this year amounted to 653,605 tons, of which 398,303 tons (or 61 per cent.) were shipped to foreign ports. As compared with the same period of the previous two years, the increased business done was enormous, as can be seen by a glance at the following figures:—1897, 444,139 tons; 1898, 459,940 tons; and 1899, 653,605 tons.

British Coal in Germany.—The statistics of the export of British coal last year show that, while the total export as compared with the previous year was less by 1½ per cent., the decrease in the export to Germany fell by about 6½ per cent. Our Consul-General in Berlin in his new report on German trade says that this decline was due to the Welsh strike and the outbreak of the Spanish-American war; the price of Welsh coal rose, the export declined, and German mine-owners did, for the time, a very flourishing trade with Belgium, the Netherlands, Franch, and Roumania—all countries in which there is a sharp competition between German and British coal. The decline in the import of British coal to Germany was greatest in the Baltic ports, where it had to compete with the coal of Upper Silesia; here there was a decrease of 12 per cent. in the imports as compared with the previous year; in Hamburg, which takes nearly half the total import, the decrease was over 4½ per cent.; while Hamburg took nearly 14 per cent. more Westphalian coal than in the preceding year. Ten years ago the ratio in the trade of Hamburg of British and Westphalian coal was as two to one, now it is as five to four. In Berlin the consumption of British coal declined by over 11½ per cent. In 1898 Germany took 4,506,163 tons of British coal, and in 1897 4,808,163.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols continue steady at 8½d. for 90's, and 10½d. for 50/90's. Carbolic acids are firm, while crude is now quoted 2s. 2d.: crystals and liquid are unchanged Naphthas are showing signs of increased activity, but there is no change in prices so far. There is a good market for creosote. Anthracene is dull at 3½d. to 4d. for 30% A, and 2½d. to 3d. for B. Pitch is firm as regards position, and though prices are variable, values may be stated approximately as 34s. 6d. to 35s., f.o.b. East Coast, and 33s. West.

Sulphate of ammonia is quiet, but rather steadier. Beckton quotation is £11. 15s for October-March. Nearest prompt prices are:—London (outside makes), £11. 17s. 6d.; Hull, £11. 15s.; Leith, £11. 16s. 3d.

MISCELLANEOUS CHEMICAL MARKET.

Business is brisk in all departments of the alkali trade, and the recent advances in prices are firmly maintained throughout. A considerable amount of business has been done for next year's delivery. For caustic soda, the current quotations are, f.o.b. Liverpool:—77%, £9. 15s.; 74%, £9 5s.; 70%, £8. 10s.; 60%, £7. 10s. per ton. Ammonia alkali, 58%, £4. 2s. 6d per ton, bags, f.o.r. Soda crystals. £3., bags, rails, makers' works. Bleaching powder is firmly held at £5. 5s., f.o.r., both for prompt and forward delivery. Saltcake is steady at 25s. to 26s. per ton. For rock sulphur, £4. 10s. to £4. 12s. 6d., in bulk, is current value. In sulphate of copper, there has been a further advance during the week to £26. per ton, f.o.b. Chlorate of potash and soda are unaltered at 3½d and 3¾d. per lb. respectively. Borax offers at £15. 15s. to £16. per ton. For potash, caustic and carbonate, prices continue to advance, and a good deal of business has been done for early and forward delivery; present values are: for carbonate, 90%, £16. 5s. to £16. 10s., c.i.f.; and caustic, 90%, £23 5s. to £23. 10s. per ton. Yellow prussiate of potash, 8d. per lb, and for spot delivery is somewhat scarce. Soda, 5⅞d. to 6d. per lb. Sulphocyanides rather firmer, but there is only small inquiry. Bichromates unchanged. There is good demand for green copperas, and better prices ruling. Carbolic acids are dearer in all grades. Brown acetate of lime firm at £5. 5s., ex wharf; grey, £8. per ton. White powdered arsenic is in more request, and price higher at £18 15s. to £19., f.o.r. Garston, &c. There is a better tone, generally, in the chemical trade, and more business doing.

REPORT ON MANURE MATERIAL.

The market remains very quiet in all departments, manure manufacturers being pretty well covered and finding little inducement in present range of prices to supplement their purchases.

There is no change in quotations for mineral phosphates, and no important business has transpired.

The market for bone meal rather drags, but £5. per ton, ex quay, for shipment, is still the quotation, though offers at less than this would be cabled out.

Owing to further arrivals nitrate of soda is again easier, and fine quality is now quoted 7s. 7½d. per cwt. on spot.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is firm, with a fair amount of business doing, including Benin at £23. 15s per ton, transit, for October. Olive is scarce, so that prices are well maintained, the market closing firm. Linseed is dearer, 23s. 3d. to 23s 6d. cwt. now being asked for Liverpool makes in export casks Cottonseed also favours an advance, Liverpool refined being held for 18s. 3d to 18s. 6d. cwt. Castor oil is in good request on spot, sales of first pressure French having been made at 2⅞d., and second, 2⅝d.; good seconds Calcutta is quoted 3d. per lb. Tallow is strong at the advanced prices of the last few days. Mutton ranges from 27s. to 28s 6d.; beef, 25s 6d. to 27s. for London sales. Resin is in fairly good request, steady prices being realised for all grades. Spirits of turpentine are firm at 38s. cwt. for spot, at which business has been done. Petroleum is brisker; American is quoted 6⅞d. to 8¼d., and Russian refined, 6⅛d. to 6½d. per gallon.

CAKES.—With arrivals of American Western, the recent full quotations are not maintained, sellers now offering parcels on the quay at £6. 17s. 6d. to £7. 2s. 6d. There is a moderate business passing thereat. Other imported descriptions are without alteration in value, Bombay being in good request, and tending rather in sellers' favour at £7 5s. to £7. 10s., whilst sellers of second-hand parcels of River Plate still offer the moderate supplies here at £7. 7s. 6d. per ton, and Russian are quite nominal for want of stock. Liverpool makes are in good consumptive demand, and quotations are very well maintained at £8 to £8. 10s. per ton, according to brand. There is a good inquiry experienced for American decorticated cottonseed, and holders are firm, a slight advance having been established for choice quality, the range being now from £5. 15s., to £6. 5s., according to quality, and Liverpool makes are also in fair demand at previous currencies, viz., £6. 5s. to £6. 15s. per ton, according to brand. Undecorticated Liverpool makes have a moderately fair sale to consumers, and former rates are still quoted, viz., £5. 3s. 9d. to £5. 10s. per ton, according to brand. The market for Egyptian on the spot is again firmer, a further 2s. 6d. being asked, and the quotation now given at £5. per ton, but business has ruled rather quiet thereat.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron firm: Scotch warrants closed at 70s 1½d.; Middlesbrough, 67s. 11d. cash; and hematite, 75s. 1½d Copper quiet: Chili bars, G.O.B.'s and G.M.B.'s, closed at £76. 11s. 3d. to £76 16s. 3d. cash; and £76. 12s. 6d. to £76 17s. 6d. three months Tin firm: Straits closed at £145. 15s to £146 5s. cash; and £144. 15s. to £145. 5s. three months; Australian, £146. 7s. 6d.; English ingots, £148. 15s. to £149. 10s. Lead firm: Spanish, £15 10s.; English, £15. 13s. 9d. Silesian spelter, ordinary, £22. 5s. to £22. 10s. Nickel, 1s. 2½d. Antimony, £39. 10s. to £40. Quicksilver: first hands, £8. 12s. 6d.; seconds hands, £8. 12s. *Copper Shares* steady: Cape, 4⅛ to 4¼; Copiapo, 3 11/16 to 3 13/16; Libiola, 1⅞ to 2⅛; Mason & Barry, 3⅜ to 3⅞; Rio Tinto, 46⅝ to 46¾; Tharsis, 7⅞ to 8⅛.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The markets here continue firm, and show advances upon linseed oils, whilst mineral oils have all been advanced about £1. per ton. The imports to date against the corresponding period last year have been:—Linseed, 363,789 qrs. against 235,899 qrs.; rapeseed, 82,090 qrs. against 55,874 qrs.; cottonseed, 103,498 tons against 131,052 tons; oilcake, 14,279 tons against 9,537 tons; olive oil, 3,104 tuns against 5,290 tuns; tar, 9,313 brls. against 3,579 brls. Linseed oil is firm at 21s. 1½d. spot, naked; 21s month; 20s. 1½d. October-December; 19s. 9d. January-April; boiled and refined, £1. to £1. 10s. per ton extra. The export for the week has been 14 tons; 3 Germany, 2 Holland, 9 Norway. Refined cotton oil is dearer, being quoted

16s. 4½d. spot, naked; 16s. 3d. September-October; 15s. 1½d. December-April; crude being quoted 14s. 10½d. spot; barrels, £1. 10s., and ordinary casks, £1. per ton extra. The exports have been 64 tons; 1 Belgium, 1 France, 13 Germany, 25 Holland, 2 Italy, 6 Norway, 16 Sweden. Castor oil, extracted here, cold drawn pharmaceutical, 29s. per cwt. in barrels, 3⅜d. per lb. in cases; firsts, 26s. 6d. in barrels, 3⅛d. per lb. in cases; seconds, 25s. 6d. in barrels, 3d. per lb. in cases. In turpentine there is a good deal of speculation with unreliable quotations. Resins unchanged from 4s. 4d. per cwt. for B-C grades to 9s. 2d. for W-W. Olive oil from £33 per tun for Candia. Olive oil soap, £16. to £18 per ton. Oleines, £18. to £21. per ton. Cod oil, £16. to £19. per ton. Tallow firm.

CAKES.—Feeding stuffs find a fair demand at the advanced prices. Linseed cakes firm; 95% pure, £8. to £8. 5s. per ton. Oilcakes (linseed), £7. to £7. 2s. 6d.; Russians, £7. 10s. to £7. 17s. 6d.; Americans, £7. 10s. to £7. 12s. 6d. Cotton cakes a firm tone; best makes, £5. 7s. 6d. to £5. 10s. spot; December-April, £4. 15s.; seconds, £5.; decorticated, none. Rape cakes: Black Sea, £4. 10s. per ton.

PAINTS.—Are in fair demand, with prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Tuesday.

In the undernoted run of prices the figures for the products of the Scottish Mineral Oil Industry are allowed to stand at the old figures, in the meantime these representing the prices for which a great deal of the season's contracting has been done. On the open market, however, these products are stronger than they were, and the makers will no doubt make up their minds to exact enhanced values in the cases of any new sales that may fall in. Lubricating oils especially are under way for much higher prices, the initiative in this having been taken by the American importers, whose action usually rules the British markets. The market in general chemicals is still active, and the tendency has continued upwards with one or two of the lines. Sulphate of copper is again dearer. Sulphate of ammonia is in a very peculiar condition at the moment, and anything may happen.

Chief prices current are:—Soda crystals £2. 7s. 6d. to £2. 10s. basis, nett, Tyne: soda ash, £4. 2s 6d. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 10s. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £9. 5s, 70/72° £8 10s., 60/62° £7. 10s, and cream, 60/62° £7. 10s., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltcake, 25s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 6d. to 7s. 9d; sulphate of ammonia, £12., prompt, f.o b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £24. 10s., less 5% Liverpool; paraffin scale, hard, 1⅞d. to 2d. per lb., and soft, 2¼d. per lb.; paraffin wax, 120° semi-refined, 2½d. to 2¾d. per lb.; paraffin spirit (naphtha), 10d. to 11d. per gallon; paraffin oil (burning), No. 1., 6¼d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5. 5s., 885°, £5. 10s. to £6., and 890/895°, £6. 5s. to £6. 10s. Week's imports of sugar at Greenock were *nil*.

TYNE CHEMICAL REPORT.

Tuesday.

Chemicals are steady and there is a fairly good demand. Soda crystals are quoted at £2. 17s. 6d. per ton, gross weight, locally. Caustic, 70%, £8. 10s., and 76/77%, £9. 5s. per ton, f.o.b. Sulphur, scarce at £4. 15s. per ton.

Bleaching powder, softs, £6. per ton, f.o.b. nett; do., hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. 10s. per ton, nett; do., 50%, £4. 12s. 6d. per ton, nett; do., 52%, £4. 15s per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5 per ton, nett; do., 50%, £5. 3s 9d. per ton, nett; do., 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do., 100° Tw., £3. per ton, nett; do., 140° Tw., £3 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt firm at 9s.6d. to 10s per ton, f.o.b. Tees.

COALS.—The market is rather easier for best Northumbrian steam. Bunker coals are steady without change in price. Gas coals are in good demand and contracts are pending for considerable quantities over next year. Coke is still very firm. To-day's prices are: Best Northumbrian steam, 11s. to 11s.6d. per ton; second qualities, 10s. to 10s. 6d. per ton; small steam, 6s. 6d. to 6s. 9d. per ton; gas coals, 10s. 6d. to 11s. per ton; household coals, 10s. to 11s. per ton; coke, 24s. to 25s. per ton.

New Companies.

Orion Chemical Co., Ltd.—Capital £5,000. in £1. shares. This company has been formed to acquire the business carried on at 19-21, Pennyfields, Poplar, as "The Orion Chemical Co." to adopt an agreement with R. H. Reeves, J. E. Maeder, and T. Moffatt, and to manufacture and deal in borax, chemicals, etc.

C. Sands & Co., Ltd.—Capital £1,600. in £1. shares. This company has been formed to acquire the business carried on at 14, Duncan-street, Salford, Lancashire, as C. Sands and Co., and to carry on the business of dye, cement, varnish, ink, blacking, and chemical manufacturers, tanners, curriers, leather merchants, etc.

Societe Francaise des Glycerine Pures, Ltd.—Capital £80,000. in £1. shares. This company has been formed to adopt an agreement with George Blackwell and Co., Ltd., and to carry on the business of manufacturers of and dealers in glycerine, nitro-glycerine, dynamite, gun cotton, and all kinds of explosives, varnish, soap, candles, tallows, oils, paints, dyes, colours, fats, chemicals, etc. The subscribers to the memorandum of association are:—F. Winter, 28-29, St. Swithin's-lane, E.C., clerk; C. D. Bickley, 3, Lime Villas, Richmond-road, Wimbledon, clerk; H. A. Mabey, 41, Saltoun-road, Brixton, S.W., shorthand writer; J. Rundle, 28-29, St. Swithin's-lane, E.C., caretaker; G. H. Sawyer, 28-29, St. Swithin's-lane, E.C., chartered accountant; P. Mitchell, 55, Onslow Gardens, Highgate, N., accountant; P. P. Ornshin, 17, Mowbray-road, Brondesbury, N.W., advertising agent.

Raines, Porter, and Seddon, Ltd.—Capital £50,000. in £1. shares (15,000 6 per cent. cum. pref.). This company has been formed to acquire the business carried on by C. Long and T. Seddon, under the style of "Raines and Porter's Successors," at Wincolmlee, Hull, and the business carried on by T. Seddon under the style of "J. and T. Seddon," at Oxford-street, and York-street, Hull, and to carry on the business of manufacturers of and dealers in oil, tallow, and grease, paint, colour, varnish, railway and other greases, glycerine, manufacturers of anti-corrosive, damp-resisting, and other enamels, chemicals, etc. The subscribers to the memorandum of association are:—C. Long, Glenholm, Buttershaw, Bradford, oil refiner; T. Seddon, 107, Westbourne-avenue, Hull, oil refiner; C. H. Foulds, Woodbine, Keighley, leather merchant; P. H. Coke, Upton Gray, Harrogate, retired Captain; J. B. Childe, Folly Hall, Wibsey, near Bradford, incorporated accountant; H. Parker, Clare-rd., Halifax, manufacturer; W. Morgan, Mount View, Shipley, solicitor.

Giddings & Dacre, Ltd.—Capital £90,000. in £10. shares (5,000 pref.). This company has been formed to acquire the business carried on at 19, Chapel-street, Salford, as "Giddings and Dacre," to enter into two agreements with A. Giddings, and to carry on the business of manufacturers of and dealers in chemical lead, sheet lead, lead and composition pipes, sanitary ware and appliances, glass, brass, iron, etc. The subscribers to the memorandum of association are:—A. Giddings, Tweed Side, Ashley-road, Peel Causeway, lead manufacturer; Mrs. S. Dacre, Sedgley Lodge, Derby-road, Heaton Chapel; Mrs S. Giddings, Tweed Side, Ashley-road, Peel Causeway; F. W. Holmes, Ingledene, 46, Barlowmoor-road, Didsbury, yarn agent and merchant; J. E. Perkins, 7, Park Grove, Old Trafford, Manchester, cashier; Miss L. Giddings, Calderbank, Harboro'-road, Ashton-on-Mersey; Miss L. Giddings, Calderbank, Harboro'-road, Ashton-on Mersey.

George G. Blackwell, Sons, and Co., Ltd.—Capital £50,000. in £1. shares. This company has been formed to adopt an agreement between G. G. Blackwell, of the one part and J. M. Parry (for the co.) of the other part, and to carry on the business of mine owners, merchants, importers, exporters, and manufacturers of and dealers in manganese, French chalk, bauxite, metallic alloys, ores, minerals, metals, greases, oils, dyes, colours, and chemicals. The subscribers to the memorandum of association are:—A. W. Blackwell, Straidlands, Waterloo, analytical chemist; E. S. Blackwell, The Albany, Liverpool, works manager; Mrs. J. Blackwell, Straidlands, Waterloo; Miss M. S. Blackwell, Straidlands, Waterloo; Mrs. A. S. Blackwell, Brick Villas, Wallasey; G. G. Blackwell, The Albany, Liverpool, mineral and metal merchant; H. A. Blackwell, The Albany, Liverpool, mineral and metal merchant. The number of directors is not to be less than two nor more than three; the first are G. G. Blackwell and H. A. Blackwell; qualification, £500.; remuneration, 1 guinea each per board meeting attended.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.
Week ending September 9th.

Acetic Acid—
Holland, 90 pks. Little & Johnston
" 6 A. & M. Zimmerman
" 50 R. W. Greeff & Co.

Acetone—
Germany, 5 pks. J. Norrenberg & Co.
" 19 Wainwright Brs & Co.
Holland, 12 Hernu, Peron, & Co.

Alkali—
Belgium, 25 t. H. Wallace & Co.
Canada, 6 J. Barber & Co

Ammonium Phosphate—
Holland, £95 Chemical Works

Barium Chloride—
Germany, 22 pks. Petri Brs.

Barium Nitrate—
Holland, 14 pks. Petri Brs.

Barium Sulphate—
Belgium, 150 pks. Sawer, Sons, & Co.

Barytes—
Holland, 66 pks. W. Harrison & Co.
" 23 O'Hara & Hoar
" 50 H. Evans & Sons
Belgium, 150 Pilchers, Ld.
" 192 J. L. Lyon & Co.
Germany, 10 Steinhoff, Sons & Co.

Bleaching Powder—
Germany, 70 pks. J. M. Steel & Co.

Bones—
Melbourne, 5 t. C. M. Lampson & Co.
N. Zealand, 1 Culverwell, Brooks, & Co.

Caoutchouc—
France, 8 c. Hale & Son
" 1 t. 2 H. Johnson & Sons
Portugal, 6 W. M. Smith & Sons
E. Indies, 14 G. Williamson & Co.
" 4 18 Barber & Co.
" 2 Prop. Bull Wf.
" 6 Lewis & Peat
Borneo, 5 Huttenbach & Co.
Aden, 1 6 Wallace Brs.
" 10 W. M. Smith & Sons
" 6 Humphery & Co.
Straits, 3 12 Anderson, Weber, & Smith
" 3 Elkan & Co.
" 43 17 E. Boustead & Co
" 22 16 L. & I. D. Jt. Co.
" 5 Huttenbach & Co.
Belgium, 1 T. Ronaldson & Co.
P. E. Africa, 5 Clarke & Smith
B. E. Africa, 13 Hale & Son
" 12 Forbes, Forbes, & Co.
" 5 Clarke & Smith
Zanzibar, 1 7 Gray, Dawes, & Co.
" 1 6 L. & I. D. Jt. Co.
Rangoon, 4 14 Prop. Hay's Wf.

Carbon—
Holland, £505 Phillipps & Graves

Caustic Potash—
Germany, 25 pks. J. M. Steel & Co.
" 20 South Devon Wf. Co.

Chemicals *(otherwise undescribed)*
Holland, £15 Phillipps & Graves
" 56 Netherlands S. B. Co.
" 30 R. W. Greeff & Co.
France, 15 Van Oppen & Co.
Germany, 40 Craven & Co.
" 8 D. T. Domeier & Co.
" 35 T. H. Lee
" 30 L. & I. D. Jt. Co.
" 17 Argo S. S. Co.
Japan, 330 W. M. Smith & Sons
" 6 L. & I. D. Jt. Co.
U. States, 832 S. C. Jones
Sweden, 65 Hunt, Leuchars, & Co.
" 10 M. D. Co
Belgium, 15 John Cockerill Line
" 80 H. Harkness

Citrate of Lime—
Italy, 25 cks. Thames S. T. & L. Co., Ld.

Citric Acid—
Germany, 6 pks. A. & M. Zimmermann

Coal Products—
Carbolic Acid
Germany, 25 pks. J. G. Back
Pitch
Belgium, 63 cks. Poth, Hille, & Co.
N. Russia, 580 Linck, Moeller, & Co
" 300 brls. Harris Brs.
Tar
N. Russia, 1,000 brls. W. F. Malcolm & Co.
" 4,624 Linck, Moeller, & Co.

Colours—
Holland, 3 cs. G. S. N. Co.
" 3 cks. Henderson, Craig, & Co.
Germany, 11 O'Hara & Hoar

Copper Sulphate—
Germany, 28 pks. Charles & Fox
" 28 F. Smith

Cream of Tartar—
France, 4 pks. C. Atkins & Nisbet
" 8 B. & F. Wf. Co., Ld.

Cresolene—
U. States, 61 cs. Lunham & Moore

Dyestuffs—
Argols
Italy, 21 pks. Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 20 pks. Hendry & Martin
Cutch
Rangoon, 200 pks. Brown & Elmslie
" 256 H. A. Litchfield & Co.
Straits, 115 Borneo Co., Ld
Extract
Holland, 17 pks. J. Norrenberg & Co
" 1 W. Hooton & Yates
France, 12 Bellamy's Wf., Ld
" 55 Beresford & Co.
" 50 B. & F. Wf. Co. Ld.
Gambier
Straits, 144 pks. E. Boustead & Co.
" 311 J. W. Cook & Co., Ld.
" 246 C. S. Lovell
Indigo
E. Indies, 10 chts. Wallace Brs.
" 1 H. J. Perlbach & Co.
" 29 Parsons & Keith
Myrabolams
E. Indies, 600 pks. Prop. Hay's Wf.
" 122 Marshall & French
" 1,366 L. & I. D. Jt. Co.
Saffron
Spain, 2 pks. J. Barber & Co.
Shumac
Italy, 550 pks. E. Lloyd & Co
" 258 A. Slator & Co.
Tanners' Bark
Belgium, 14 t. Leach & Co
Melbourne, 51 Brown & Elmslie
Valonia
Dardanelles, 27 t. A. & W. Nesbitt

Farina—
Germany, 75 pks. J. Barber & Co.
" 200 R. Bennett & Co.
" 150 Humphery & Co.
" 40 T. H. Lee
Holland, 70 G. S. N. Co.

Glucose—
U. States, 250 pks. 250 c. Perkins & Homer
" 500 500 L. Norman & Co., Ld.
" 50 314 R. Johnson & Co.
" 250 250 Trier, Meyer, & Co.
" 100 595 Deering & Robotton
" 100 583 J. Keiller & Son
" 1,300 1,300 L. & I. D. Jt. Co.
" 4 043 10,833 R. G. Hall & Co.
" 150 900 E. & T. Pink
" 49 307 C. Barnard
" 250 250 Beck & Pollitzer
" 750 750 Fellows, Morton & Co.
France. 213 213 Trier, Meyer, & Co.
" 220 220 W. E. Cole
" 100 100 C. A. & H. Nichols
" 65 195 W. H. Carey & Sons

Glue—
U. States, £30 Beck & Pollitzer
" 60 L. & I. D. Jt. Co.
" 250 W. Dixon
France, 104 J. Harrison
" 775 T. M. Duche & Sons
" 100 Mory & Co.
Belgium 15 Leach & Co.
" 1,145 Becker & Wagner
" 300 G. E. Banes
Holland, 67 W. Balchin, Ld.

Glycerine—
Sydney, £83 L. & I. D. Jt. Co.
" £176 H. Hill & Sons
France, 310 "
M'bourne, 1,000 "
Germany, 48 J. Barber & Co.

Gutta Percha—
Germany, 3 c. T. H. Lee
" 10 t. 8 Huttenbach & Co
" 4 Chautatard & Christensen
Straits, 2 L. & I. D. Jt. Co.
" 15 6 Huttenbach & Co.
" 6 10 Prop. Bull Wf
" 5 5 Kleinwort, Sons, & Co.
" 32 16 Anderson, Weber & Smith
" 11 5 Gilman Brs. & Co.

Iron Oxide—
Germany, 6 pks. H. Lambert

Lithopone—
Holland, 20 pks. Taylor Brs.

Manure—
Germany, 4 t. H. Lambert
E. Indies, 100 E. Packard & Co.
" 200 Walker, Howard, & Co.

Methylic Alcohol—
U. States, 100 brls. Lister & Biggs
Germany, 1,400 g. "
" 470 J. Norrenberg & Co.
Canada, 680 T. Jones & Co

Molasses—
U. States, 550 cks. 3,128 c. J. Forsey
" 641 799 Ohlenschlager
2,857 brls. Brs.
" 500 2,856 G. Hornzee

Nickel Salts—
Holland, £26 H. & G. Dutfield

Ochre—
U. States, 17 pks. Taylor Brs.
" 300 L. & I. D. Jt. Co
Holland. 151 Phillips & Graves
Germany, 19 Wilkinson, Heywood & Co.
France, 197 W. Harrison & Co
" 35 Vokins & Co., Ld.

Oxalic Acid—
Holland, 10 pks. R. W. Greeff & Co.

Paraffin Wax—
U. States, 90 brls. Atlantic Trans. Co.

Phosphates—
France, 140 t. T. Farmer & Co.

Potash—
Belgium, 3 pks. T. H. Lee
Germany, 2 "

Potassium Bicarbonate—
Holland, 5 pks. A. & M. Zimmerman

Potassium Carbonate—
Germany, 48 t. 14 c. Gas Light & Coke Co.
Canada, 8 Charles & Fox

Potassium Muriate—
Germany, 308 pks. Bessler, Waechter, & Co.

Potassium Oxalate—
Holland, 40 pks. R. W. Greeff & Co.

Potassium Sulphate—
Germany, 500 pks. Anglo-Continental Guano Wks.
" 50 F. W. Berk & Co.

Pyrites—
Spain, 1,840 t. Naylor, Benzon, & Co.
" 7,475 Anderson, Anderson, & Co.

Red Lead—
Germany, 8 pks. Robertson, Selley, & Co.

Rosin—
U. States, 500 brls. Moore & Hole

Salicylic Acid—
Germany, 28 pks. T. H. Lee

Saltpetre—
E. Indies, 730 bgs. Perkins & Homer
" 923 Lucas & Spencer's Wf.
Germany, 16 brls. P. Hecker & Co.

Soda Ash—
Belgium. 104 t R. Waters
" 100 Brunner, Mond, & Co.

Sodium Chlorate—
France, 202 pks. Vokins & Co., Ld.

Sodium Hyposulphite—
Germany. 9 t. 11 c. H. Lambert
" 22 pks Deering & Robottom
Holland, 35 Typke & King
" 32 Netherlands S. B. Co.

Sodium Oxalate—
Holland, 1 pk. R. W. Greeff & Co.

Sodium Prussiate—
Belgium, 19 pks. J. W. Cook & Co.,
" 19 J. Owen
Germany, 25 "

Starch—
Holland. 10 pks. J. Barber & Co.
" 1,828 Little & Johnston
" 950 J. R. Francis & Co.
" 40 Hernu, Peron, & Co.
" 720 A. Starck
Belgium, 140 Taylor Brs.
" 519 T. H Lee
" 50 Leach & Co.
" 280 J. Harrison
" 515 T. Ronaldson & Co.
" 655 E. & T. Pink
Germany, 197 Argo S. S. Co.
" 20 Dunlop Brs. & Co.
" 1,320 Horne & Co.
" 6 T. H. Lee
U. States, 250 Beck & Pollitzer
" 35 F. Tallach & Son
" 2,400 Union L. Co., Ld.
" 1,000 R. G. Hall & Co.
" 677 C. Tennant, Sons, & Co.

Stearine—
Germany, 5 cks. Craven & Co.
N. Zealand, 7 B. Young & Co.
Holland, 51 bls. J. Owen
" 136 bgs. H. Hill & Sons
Belgium, 63 "
" 15 T. Ronaldson & Co.
" 89 D. C. Thomas & Sons

Sulphate (Alumina)—
Holland, £80 Satanite Co.

Sulphur—
Italy, 5 t. A. E. Piggott
" 500 Brandram Brs. & Co.
" 51 Curtis & Harvey
" 25 A. Zumbeck & Co.
" 1 A. F. White & Co
" 10 G. Boor & Co.
" 100 A. Hunter & Co.
" 16 F. & L. Sitzler

Sulphuric Acid—
Germany, 50 pks. Spencer, Chapman, & Co

Tallow—
Germany, 5 cks. T. Oertell
Argentina, 1 Goad, Rigg & Co.
Melbourne, 178 "
" 64 Bessler, Waechter, & Co.
" 299 Phillipps & Graves
Queensland, 30 Australian Meat Co.
Sydney, 43 "
" 123 Phillipps & Graves
N. Zealand, 270 Anning & Cobb
" 540 Beresford & Co.
" 114 L. Primo & Oxford
" 3 Culverwell, Brooks, & Co.

Varnish—
Holland, 12 pks. Phillipps & Graves
Germany, 10 Capes & Self
" 4 T. H Lee
" 19 Argo S. S. Co
U. States, 5 Taylor Brs.
Belgium, 8 J. E. Kitton
———, 6 Phillipps & Graves

White Lead—
Holland, 44 pks. Burrell & Co.
" 18 A. & M. Zimmermann
" 31 Perkins & Homer
" 54 T. & W. Farmiloe, Ld.
" 34 J. R. Francis & Co.
" 30 Kerestedji & Co.
Belgium, 57 T. & W. Farmiloe, Ld.
Germany, 21 Burrell & Co.
" 31 Pilchers, Ld.
Melbourne, 1 E. Fencken & Co. Propy. Ld.

Wolfram Ore—
Queensland, 8 t. 1 c. Brown & Elmslie
" 2 Vivian & Co.

Wood Pulp—
Sweden, 1,200 pks. W. G. Taylor & Co.
" 136 C. S. Lovell
" 250 Ekman Pulp & Paper Co.
" 320 Johnsen & Jorgensen
" 300 G. Hagborg & Co
Canada, 541 A. E. Reed & Co.
" 1,510 Henderson, Craig, & Co.
U. States, 2,630 "
" 293 A. E. Reed & Co
Norway, 60 London Paper Mills Co
Belgium, 2,096 J. Harrison

Zinc Oxide—
Holland, 70 pks. Prprs. Dowgate Dk.
Germany, 500 Soundy & Sons
U. States, 350 M. Ashby, Ld.

Zinc White—
Holland, 78 pks. Spies Brs. & Co

LIVERPOOL.

Week ending September 7th.

Acetate of Lime—
New York 1,060 bgs.
Acetic Acid—
Rotterdam, 20 ballns.
Asbestos—
Rotterdam, 14 bls.
Barytes—
Antwerp, 50 bgs. J. T. Fletcher & Co.
,, 86 cks. 150
Bone Ash—
Antwerp, 134 bgs.
Boracic Acid—
Legborn, 64 cks.
Borate of Lime—
Valparaiso, 3,490 bgs.
Castor Oil—
Marseilles, 115 cks. 347 brls. 50 cs.
Caustic Potash—
Bremen, 20 dms.
Chrome Ore—
Baltimore, 19 cks. P. R. McQuie & Co.
Chrome Oxide—
Hamburg, 1 cs.
Coal Products—
Tar
Bordeaux, 1 cs.
Colours—
Ghent, 3 brls. J. T. Fletcher & Co.
,, 1 cs.
Antwerp, 1 ck. 1
Bremen, 4 cks.
Cream of Tartar—
Barcelona, 2 cks. F. & L. Sitzler
Tarragona, 11
Genoa 3 brls. Langstaff & Co.
Dyestuffs—
Argols
Oporto, 52 cs.
Patras, 1 brl.
Extract
New York, 150 brls. McArthur & Co.
,, 2 cs.
Ghent, 20 brls.
Havre, 10 cks.
Saffron
Marseilles, 1 cs.
Valonia
Smyrna, 616 bgs.
Patras, 415 A. M. Culliafar
Farina—
Fiume, 450 bgs.
Hamburg, 40
Gelatine—
Hamburg, 2 cs.
Havre, 2
Glucose—
Baltimore, 1,550 brls.
Glue—
New York, 2 cs.
Fiume, 60 bls.
Boston, 1 bx.
Rotterdam, 120 bgs.
Glycerine—
Marseilles, 11 dms.
Horn Piths—
B. Ayres, qty.
Boston, 35 bgs. H. Nicholson
Lactic Acid—
Boston, 10 brls. J. Taylor & Co.
Limestone—
Antwerp, 4 crts. J. T. Fletcher & Co.
2 cs.
,, 2 cks.
2 pks.
Linseed Oil—
Bordeaux, 2 dms.
Magnesite—
Fiume, 252 bgs.
Manganese—
Hamburg, 5 cks.
Manure—
Karachi, 2,618 bgs.
Mineral White—
Fiume, 193 bgs.
Trieste, 700
Nitrate—
Caleta, 1,840 t.
Ochre—
Marseilles, 92 cks. 26 brls.
Paint—
Boston, 2 brls. Musson & Co.
Bordeaux, 3 cs.
Potash—
Hamburg 10 cks. 24 cs.
Pyrites—
Huelva, 1,631 t. Matheson & Co.
Rosin—
Baltimore, 1,551 brls.
Pensacola, 2,000
Bordeaux, 2 cks.
Saltpetre—
Hamburg, 4 cks.
Karachi, 590 bgs.
Soap—
Marseilles, 4 cs. G. G. Mackay
,, 541 34 dms.
Boston, 200 bxs.
N. Orleans, 305 brls.
N. York, 522 4 cs.
Bordeaux, 648
Soapstone—
Bordeaux, 100 bgs. Geo. G. Blackwell, Sons, & Co.
Genoa, 200
Starch—
Philadelphia, 2,600 bgs.
Baltimore, 1,000
Antwerp, 60 cs. J. T. Fletcher & Co.
,, 782 3 brls.
Hamburg, 232 cs.
Boston, 800
Stearine—
Antwerp, 19 bgs J. T. Fletcher & Co.
Talc—
Fiume, 100 bgs.
Genoa, 500
Tallow—
Baltimore, 250 tcs.
Philadelphia, 100
Boston, 365
New York, 200 Colby & Co.
,, 100 brls. 80 hhds.
,, 100 B. Ackerley & Sons
Tartar—
Bordeaux 37 cks.
Tartaric Acid—
Marseilles, 20 cks.
Ultramarine—
Antwerp, 10 cs.
Bremen, 8 cks.
Rotterdam, 24 cks.
Varnish—
Genoa, 4 cs. T. A. Hodgkinson
Waste Salt—
Hamburg, 203 bgs.
White Lead—
Rotterdam, 31 cks.
Wood Pulp—
Quebec, 298 bls. A. Wortheim
Rotterdam, 162
Gefle, 250 C. Fernandez & Co.
Zinc Oxide—
Antwerp, 20 brls.
New York, 100
Rotterdam, 20
Zinc White—
Rotterdam, 100 cks.

MANCHESTER.

Week ending September 9th.

Acetate of Lime—
New York, 991 bgs.
Aluminium Sulphate—
Ghent, 7 brls.
Barytes—
Antwerp, 170 bgs.
Chalk—
Rouen, 6 cs.
Colours—
Antwerp, 2 bls.
Hamburg, 2 cks. 7 cs.
Rotterdam, 200 32 1 crt. 79 brls. 3 bxs.
Cottonseed Oil—
New York, 418 brls.
Farina—
Danzig, 1,000 bgs. W. H. Stott & Co.
Stettin, 800 ,,
,, 1,190 sks. Browne, Geveke & Co.
,, 780
Glucose—
New York, 150 brls.
Rotterdam, 10 cks.
Stettin, 1,407 sks. 263 cks.
Glue—
Antwerp, 156 pks.
Rotterdam, 30 bgs. 5 cs.
Rouen, 23 cks. 20 bls.
Treport, 5
Glue Stock—
Hamburg, 50 bgs. 17 bls.
Lead Acetate—
Rotterdam. 7 cks.
Limestone—
Antwerp, 3 crts. J. T. Fletcher & Co.
,, 27 cs.
Litharge—
Rotterdam, 23 cks.
Ochre—
Treport, 21 cks.
Paraffin Wax—
New York, 720 brls.
Potassium Chromate—
Hamburg, 1 ck.
Potassium Muriate—
Hamburg, 10 cks.
Potassium Prussiate—
Rouen, 3 cks.
Red Lead—
Rotterdam, 14 cks.
Starch—
Antwerp, 245 cs.
Hamburg, 120
New York, 3,300 bgs.
Rotterdam, 80 bxs. 45
Stearine—
Rotterdam, 26 bls.
Tannin—
Rotterdam. 10 cks.
Ultramarine—
Hamburg, 4 cks.
Waste Salt—
Hamburg, (a lot)
Wood Pulp—
Christiania, 2,634 bls.
,, 19 cs. R. Sanderson & Co
Drammen, 3,477 bls.
,, 1,102 W. H. Ingram
Gefle, 9,901
,, 4,990 W. H. Stott & Co.
Hamburg, 203 440 pks
Kallero, 2,400
Skutskar, 400 W. H. Stott & Co.
Zinc Oxide—
Rotterdam, 40 cks.

HULL.

Week ending September 9th.

Acetic Acid—
Rotterdam, 8 blns. Hull & Netherlands S. S. Co.
Acids—
Leghorn, 13 cks. Wilson, Sons, & Co., Ld.
Stettin, 6 btls. ,,
Alcohol—
Hamburg, 1 dm.
Antimony—
Dunkirk, 2 cks. Wilson, Sons, & Co., Ld.
Leghorn, 100 ,,
Hamburg, 1 cs. ,,
Asbestos—
Genoa, 2 cs. Wilson, Sons, & Co., Ld.
Barytes—
Amsterdam, 34 cks. Hull & Netherlands S. S. Co.
Antwerp, 100 pks. Bailey & Leetham, Ld.
,, 102 cks. H. F. Pudsey
Bremen, 38 Sissons Brs. & Co.
,, 67
Rotterdam, 213 bgs. Hull & Netherlands S. S. Co.
Bones—
Boston, 31 bgs. Wilson, Sons, & Co., Ld.
Borax—
Hamburg, 10 cks.
Castor Oil—
Marseilles, 7 pks. Wilson, Sons, & Co., Ld.
Chemicals *(otherwise undescribed)*
Bremen, 1 cs. J. Pyefinch & Co.
Dunkirk, 1 ck. Wilson, Sons, & Co., Ld.
Hamburg, 11 pks. ,,
Rotterdam, 3 cs. Hull & Netherlands S. S. Co.
Coal Products—
Alizarine
Rotterdam, 23 brls. 10 cks. 106 pks. Hull & Netherlands S. S. Co
Aniline
Rotterdam, 48 pks. Hull & Netherlands S. S. Co.
Aniline Colours
Rotterdam, 67 pks. Hull & Netherlands S. S. Co
Carbolic Acid
Amsterdam, 50 cks. Hull & Netherlands S. S. Co.
Pitch
Archangel, 250 cs.
Copenhagen, 40 brls. Wilson, Sons, & Co., Ld.
Rotterdam, 30 cs. Hull & Netherlands S. S. Co.
Tar
Archangel, 1,574 brls.
Colours—
Antwerp, 1 cs. Storry, Witty, & Co.
,, 76 cks. Wilson,
11 pks. Sons, & Co., Ld.
Bremen, 50 bgs. Veltmann & Co.
,, 3 cs. J. Pyefinch
1 dm. & Co.
Ghent, 27 cks. Wilson, Sons, & Co., Ld.
,, 13
Hamburg, 100 ,,
,, 12 pks
Rotterdam, 24 cks. 125 pks 7 brls. 3 cs. Hull & Netherlands S. S. Co.
,, 1 Wilson, Sons, & Co., Ld.
Cream of Tartar—
Bordeaux, 9 cks.
Leghorn, 10 brls. Wilson, Sons, & Co., Ld
Marseilles, 1 ck. ,,
Dextrine—
Stettin, 20 bgs. Wilson, Sons, & Co., Ld.
Dyestuffs—
Dyewood
Antwerp, 10 bls. Wilson, Sons, & Co., Ld.
Extract
Boston, 200 brls. Wilson, Sons, & Co , Ld.
Dunkirk, 10 cks. Rawson & Robinson
New York, 50 brls.
Rouen, 9 cks. Wilson, Sons, & Co., Ld.
Logwood
Hamburg, 3,774 pcs. Wilson, Sons, & Co., Ld.
Myrabolams
Bombay, 2,144 bgs.
Farina—
Hamburg, 292 pks.
Harlingen, 147 bgs. Hull & Netherlands S. S. Co.
Stettin, 575 bgs. Wilson, Sons, & Co., Ld.
Glucose—
Hamburg, 53 cks. Wilson, Sons, & Co., Ld.
New York, 604 brls.
Stettin, 300 bgs. ,,
Glue—
Genoa, 10 cs.
Rouen, 45 pks. Wilson, Sons, & Co., Ld.
Glue Stock—
Hamburg, 84 bls. Wilson, Sons, & Co., Ld.
Rouen, 66 ,,
Lead Acetate—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.
Lithopone—
Hamburg, 20 cks.
Rotterdam, 40 Hull & Netherlands S. S. Co.
Ochre—
Rouen. 25 cks. Wilson, Sons, & Co., Ld.

Paint—
Amsterdam, 2 cs. Hull & Netherlands S. S. Co.

Paraffin Wax—
New York, 360 brls.

Phosphates—
Ghent, 101 t.

Potash—
Antwerp, 27 dms. Wilson, Sons, & Co., Ld.
Dunkirk, 60 ,,

Plumbago—
Genoa, 200 bgs.
Hamburg, 27 cks.

Red Lead—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.

Rosin—
Savannah, 2,825 brls.

Salicylic Acid—
Hamburg, 1 cs.

Salt—
Hamburg, qty.

Saltpetre—
Hamburg, 4 cks.

Soap—
Boston, 200 bxs. Wilson, Sons, & Co., Ld.
Marseilles, 12 cs. ,,
Naples, 8 ,,
New York, 50 bxs. ,,

Soda—
Antwerp, 10 cks. Wilson, Sons, & Co., Ld.
Hamburg, 1 ,,

Sodium Nitrate—
Hamburg, 234 bgs. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 30 bgs. Hull & Netherlands S. S. Co.
Antwerp, 200 J. R. & A. Mayfield
,, 160 cs.
,, 40 Wilson, Sons, & Co., Ld.
Bremen, 2,479 Veltmann & Co.
Ghent, 380 Wilson, Sons, & Co., Ld.
New York 230 bgs.
Rotterdam, 62 cs. Hull & Netherlands S. S. Co.

Stearine—
Antwerp, 38 bgs. Wilson, Sons, & Co., Ld.

Sulphur Ore—
Seville, 980 t.

Tallow—
Boston, 312 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 115 ,,
New York, 46 hds. ,,

Tartar—
Naples, 22 cks. Wilson, Sons, & Co., Ld.

Tartaric Acid—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

Turpentine—
Bordeaux, 6 cks. Wilson, Sons, & Co., Ld.
Libau, 53 brls. Helmsing & Son
Savannah, 2,375

Ultramarine—
Antwerp, 2 cks. Bailey & Leetham, Ld.
Bremen, 2 W. B. Mason
Rotterdam, 2 Hull & Netherlands S. S. Co.

White Lead
Amsterdam, 46 cks Hull & Netherlands S. S. Co.
Rotterdam, 65 ,,

Wolfram Metal—
Hamburg, 5 cs.

Wood Pulp—
Abo, 339 bls. J. Good & Sons
,, 20
Christiania, 1,566 pks. Wilson, Sons, & Co., Ld.
Gothenburg, 1,088
Konigsberg, 25 bls. Bailey & Leetham, Ld.
Norrkoping, 300 Wilson, Sons, & Co., Ld.

Zinc White—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending September 14th.

Acetic Acid—
Rotterdam, 8 cks.

Barium Sulphate—
Antwerp, 400 bgs. / 59 cks.

Bichrome—
Rotterdam, 23 cks. J. Rankine & Son

Castor Oil—
Antwerp, 83 cks.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 cs.
Hamburg, 1

Coal Products—
Alizarine
Rotterdam 46 cks. J. Rankine & Son
2 cs.
Pitch
Archangel, 300 brls.
Tar
Archangel, 1,304 brls.

Colours—
Rotterdam, 1 cs. 1 ck. / 3 bxs. / 36 brls. J. Rankine & Son
,, 2 cs. / 4 cks. / 115 pks.

Dyestuffs—
Cutch
Rangoon, 383 bxs. P. Henderson & Co.
Extract
Antwerp. 1 ck.
Rotterdam, 2

Gelatine—
Rotterdam, 5 cs.

Glucose—
New York, 899 brls.

Glue—
Rotterdam, 85 bgs.

Linseed Oil—
Antwerp, 2 cks

Manganese—
Rotterdam, 110 t.

Oxalic Acid—
Hamburg, 6 cks.

Paraffin Wax—
Rangoon, 126 cs. P. Henderson & Co.
394 bxs.

Potash—
Hamburg, 146 cks.

Potassium Cyanide—
New York, 2 cs.

Potassium Oxalate—
Rotterdam, 10 cks.

Soap—
New York, 190 brls.

Starch—
New York, 750 cks.

Sulphur Chloride—
Rotterdam, 17 djons. J. Rankine & Son

Sulphuric Acid—
Rotterdam, 3 cks.

Tannin—
Hamburg, 1 ck.

Tartaric Acid—
Rotterdam, 6 cks.

Tartar Emetic—
Hamburg, 4 cks.

Ultramarine—
Hamburg, 1 cs.

Varnish—
New York. 41 brls.

White Lead—
Rotterdam, 100 pks.

Wood Pulp—
Oporto, 500 bls.
Hamburg, 203 / 66 lbs.
Christiania, 956

Zinc Oxide—
Antwerp, 8 cks.
Hamburg. 40
New York, 150 brls.

Zinc White—
Rotterdam, 10 cks.

TYNE.

Week ending September 9th.

Antimony—
Swinemunde, 22 cks.

Arsenic—
Hamburg, 20 cks.

Asbestos—
Copenhagen, 1 truss
Hamburg, 80 bgs. Tyne S. S. Co.
Rotterdam, 4 crts. ,,

Barytes—
Antwerp, 550 bgs. Tyne S. S. Co.
,, 140
Hamburg, 11 cks. ,,
Rotterdam 150 bgs. ,,

Coal Products—
Benzol
Hamburg, 1 cs.
Pitch
Antwerp, 1 ck.
Archangel, 450 cs.
Tar
Archangel, 194 brls.
Tar Oil
Archangel, 32 brls.

Farina—
Hamburg, 50 bgs. Tyne S. S. Co.

Glue—
Antwerp, 10 bls. Tyne S. S. Co.

Limestone—
Antwerp, 9 crts.

Lithopone—
Hamburg, 20 cks. Tyne S. S. Co.

Magnesium Chloride—
Hamburg, 147 cks.

Rosin—
Baltimore, 100 brls. J. Cooke & Co.
Wilmington, 6,080

Saltpetre—
Hamburg, 20 cks. Tyne S. S. Co.

Soap—
Rotterdam, 3 cs Tyne S. S. Co.

Starch—
Antwerp, 40 cs. Tyne S. S. Co.
Rotterdam, 172 ,,

Tartaric Acid—
Rotterdam, 22 cks. Tyne S. S. Co.

Ultramarine—
Antwerp, 10 cs. Tyne S. S. Co.

Varnish—
Amsterdam, 4 cks. W. Swanston & Sons

White Lead—
Antwerp, 22 cks. Tyne S. S. Co.

Wood Pulp—
Christiania, 735 bls.
Oporto, 100 Ford Paper Works
Rotterdam, 112 Tyne S. S. Co.

GOOLE.

Week ending September 6th.

Acetic Acid—
Amsterdam, 8 cks.

Barytes—
Antwerp, 150 bgs. / 25 cks.
Hamburg, 20

Caoutchouc—
Boulogne, 7 cks.

Chemicals *(otherwise undescribe*
Hamburg, 10 cks. 5 cs.

Coal Products—
Alizarine
Rotterdam, 8 cks.
Anthracene
Boulogne, 2 cks.

Colours—
Hamburg, 36 cks. 10 cs.

Cobalt Oxide—
Rotterdam, 11 cs.

Dyestuffs *(otherwise undescribed*
Amsterdam, 4 cks. 2 cs.
Boulogne, 54 4 48 pks.
Ghent, 4
Rotterdam, 329 32

Glucose—
Hamburg, 20 cks.

Glue—
Antwerp, 1 ck.
Boulogne, 4 bs.
Rotterdam, 26 bgs.

Lead Acetate—
Rotterdam, 15 cks.

Logwood—
Ghent, 209 bgs.
Hayti, 1,146 t.

Potash—
Dunkirk, 3 cks. 20 dms.
Hamburg, 10

Pyrites—
Bossmo, 2,000 t.

Quebracho Extract—
Antwerp, 22 cks.

Salt—
Hamburg, 50 t.

Saltpetre—
Hamburg, 7 cks.
Rotterdam, 100 bgs.

Soda—
Ghent, 250 bgs.
Rotterdam, 758

Starch—
Ghent, 138 cs.

Waste Salt—
Hamburg, 193 t.

White Lead—
Antwerp, 13 cks.

Zinc Oxide—
Antwerp, 2 cks.

GRIMSBY.

Week ending September 9th.

Barytes—
Rotterdam, 180 bgs.

Caoutchouc—
Antwerp, 1 cs.
Hamburg, 23
Rotterdam, 3

Chemicals *(otherwise undescrib*
Antwerp, 5 pks.
Hamburg, 4 cks. 4 / 16 cs.
Rotterdam, 20

Colours—
Antwerp, 15 cks. 96 pks.
Hamburg, 35 16 cs. 105
Rotterdam, 3 23

Dyestuffs—
Extract
Antwerp, 10 c.

Farina—
Hamburg, 50 bgs.

Ferro Chrome—
Antwerp, 40 cs.

Plumbago—
Antwerp, 20 bgs.

Starch—
Antwerp, 177 cs.

Varnish—
Antwerp, 12 crts.

EXPORTS OF CHEMICAL PRODUCTS
AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending September 13th.

Ammonia—
Sydney, 80 cs. £109
Melbourne, 20 25
Leghorn, 2 dms. 10
Cape Town, 10 15
Calcutta, 12 18

Ammonium Carbonate—
Melbourne, 20 cs. £34
Libau, 1 t. 5 c. 38
New York, 50 kgs. 75

Ammonium Muriate—
Cologne, 5 cks.

Ammonium Sulphate—
Bremen, 50 t. £

Mauritius, 75 947
Philadelphia, 28 356

Arsenic—
Amsterdam, 15 cks. £64

Bone Ash—
Melbourne, 10 c. £11

Boracic Acid—
Sydney, 1 t. £28

Borax—
Montreal, 6 c. £15
Sydney, 7 cks. 17

Caustic Potash—
Dunedin, 2 t. £34

Caustic Soda—
Pt. Chalmers, 1 t. £15
Cape Town, 10 c. 7
Durban, 2 13 22
Townsville, 1 36

Chemicals *(otherwise undescribed)*
Antwerp, 20 cks. £16
Pt. Chalmers, 11 pks. 24
New York, 2 cs. 29
Melbourne, 3 14
Auckland, 17 15
Ostend, 4 190
Durban, 2 25
St. John, N.B., 14 36
Lyttelton, 6 6 57
Bombay, 15 47
Delagoa Bay, 7c 115
Hamburg, 16 235
Salonica, 7 brls. 33

Citric Acid—
Mackay, 1 c. £8
Durban, 2 —
Calcutta, 4 37
Bombay, 3 27
Sydney, 10 82
Melbourne, 1 t. 12 259
Greymouth, 2 20
Pt. Elizabeth, 2 19
Stettin, 2 17

Coal Products—
Alizarine
Boston, 41 cks. £458
Dunedin, 13 210
Aniline
Boulogne, 1 ck. £10
Aniline Dyes
Melbourne, 1 cs. £5
Aniline Oil
Venice, 6 dms. £200
Benzine
Cape Town, 10 dms. £10
Carbolic Acid
Boston, 215 cks. £1,605
San Francisco, 15 112
Rotterdam, 49 200
Sydney, 200 dms. 36
Melbourne, 1 cs. 14
Cologne, 48 200
Coal Tar Dyes
Boulogne 5 cks. £31
Naphthaline
Tientsin, 4 cks. £6
Hamburg, 6 52
Pitch
Lyttelton, 3 cs. £5
Montreal, 360 brls. 81
Dunkirk, 260 t. 352
Hongay, 1,810 2,534
Melbourne, 20 14
Hamburg, 50 cks. 120
Boston, 497 1,350 1,069
St. Michaels, 6 6
Rangoon, 15 pks. 8
Pyridine
Cologne, 12 cks. £118
Tar
Melbourne, 20 cks. £30
Trinidad, 15½ brls. 10
Hamburg, 200 75
Durban, 130 dms. 17
Toluol
Rotterdam, 48 mlts. £130

Copper Sulphate—
Pt. Elizabeth 9 c. £11

Cream of Tartar—
Pt. Chalmers, 1 t. £83
Lyttelton, 2 c. 8
Normanton, 10 42
Sydney, 2 154
Melbourne, 3 10 27
Auckland, 4 18

Disinfectants—
Montreal, 12 cs. £11
Perth, 80 dms. 60
Dunedin, 4 14
P. Elizabeth, 1 1 10
Melbourne, 14 40 88
41 pks.
Durban, 90 21
Manila, 6 20
Cape Town, 469 210
Rio de Janeiro, 4 13
Hamburg, 50 27 219
Yokohama, 5 19

Glycerine—
New York, 59 t. 9 c. £1,640

Guano—
Dunkirk, 136 t. £730

Manure—
Cape Town, 200 t. £838
Rochefort, 121 430

Nitric Acid—
Channel Is., 14 crbys. £28

Potassium Chlorate—
Dunedin, 9 c. £16

Potassium Cyanide—
Auckland, 200 cs. £1,104
New York, 195 1,555
Bangkok, 2 c. 2
Bundaberg, 1 t. 4 112
Sydney, 2 200
Delagoa Bay, 6 571
Adelaide, 2 242
Charters Towers, 4 16 501
Fremantle, 31 9 3,219
Townsville, 40 cks. 448

Potassium Prussiate—
Stockholm, 2 cks. £49

Salammoniac—
Sydney, 10 c. £56
Bushire 8 cks. 55
Trebizonde, 1 t. 33

Salicylic Acid—
Melbourne, 3 c. £41

Saltpetre—
Sydney, 2 t. £44
Vigo, 1 17 c. 36
Dunedin, 1 20
Sydney, 5 107
Melbourne, 1 20
Funchal, 7 9
Christchurch, 12 13
Rio de Janeiro, 7 13 150

Sheep Dip—
B. Ayres, 6 t. 9 c. £395
Alexandria, 12 pks. 9
Pt. Elizabeth, 6 100
Cape Town, 100 dms. 19
Delagoa Bay, 20 9

Soap—
New York, 4 t. 1 c. £125

Soda—
Brussels, 1 t. 2 c. £18
Zanzibar, 1 1 7
Rotterdam, 5 9 30

Soda Crystals—
Bermuda, 1 t. 12 c. £5
Bombay, 5 23

Sodium Acetate—
Sydney, 2 t. 2 c. £18

Sodium Bicarbonate—
Beira, 2 t. 4 c. £15
Pt. Elizabeth, 13 5

Sodium Prussiate—
St. Petersburg, 10 c. £27

Sodium Silicate—
Funchal, 2 t. 5 c. £9

Sulphur—
Dunedin, 20 kgs. £8
Funchal, 14 c. 6

Sulphuric Acid—
Durban, 15 c £18
Colombo, 49 cs. 40

Superphosphates—
Dunedin, 100 t. £300

Tartaric Acid—
Lyttelton, 6 c. £34
Mackay, 1 7
New York, 6 34
Melbourne, 15 91
Sydney, 10 56
Boulogne, 2 12
Cape Town, 4 24

LIVERPOOL.

Week ending September 13th.

Ammonia—
Akassa, 3 c. £6

Ammonium Carbonate—
Alexandria, 5 brls. £15
Bombay, 12 c. 16

Ammonium Muriate—
Odessa, 3 t. 5 c. £67
Genoa 10 11
Trieste, 6 6
Yokohama, 2 10 51
Hiogo. 2 10 52

Ammonium Sulphate—
Samarang, 203 t. 2 c. 19 q. £2,500
Sourabaya, 191 6 3 2,332
Valencia, 45 6 515
Teneriffe, 5 64
Gd. Canary, 57 4 1 705
Newport News, 101 4 1,272
Genoa, 50 025
Huelva, 15 5 3 195

Antimony—
Vera Cruz, 4 c. £27

Barium Chlorate—
Carril, 2 c. £6

Basic Slag—
Bordeaux, 703 t. 1 c. £1,054
Nantes, 287 432

Bleaching Powder—
Antwerp, 15 crts.
Barcelona, 108 cks.
Bombay, 30 cs.
Boston, 730
Ghent, 60
Johnsonburg, 83
Leghorn, 30
Lisbon, 110
Maranham, 6
Naples, 12
New York, 120 184 dms.
Rio de Janeiro, 26 15 pks.
Rouen, 79
Seville, 10
Vercelli, 110
Windsor Mills, 32

Boracic Acid—
Christiania, 1 t. £25
Alicante, 4 c. 5
Rotterdam, 1 13 28

Borax—
Galatz, 1 t. £17
Stettin, 19 c. 3 q. £17
Antwerp. 1 17
Rotterdam, 23 5 2 385
Hamburg, 1 2 18
Havana, 1 4 1 20
Baltimore, 23 1 2 350
Montreal, 8 7 1 137
Fremantle, 1 10 23
Brisbane, 34
St. Thomas, 1 15

Calcium Carbide—
Algoa Bay, 1 t. £22

Calcium Chloride—
Hong Kong, 5 t. 1 c. £11
Las Palmas, 3 6 3 q. 8

Carbonic Acid Gas—
Alexandria, 2 cs. £8

Castor Oil—
Sierra Leone, 1 cs.

Caustic Potash—
Sydney, 1 t. £30
Melbourne, 10 c. 15
Hong Kong, 6 3 q. 8

Caustic Soda—
Alexandria, 60 dms.
Antofagasta, 15
Antwerp, 35
Barcelona, 204
Bombay, 50
Boston, 50 bgs.
Boksburg, 10
B Ayres, 50
Calcutta, 56
Callao, 50
Canterbury, 30
Cartagena, N.G. 20
Catania, 42
Chicago, 100 50 bxs.
Copenhagen, 14
Fairwater, 15
Genoa, 276
Hiogo. 450
Hong Kong, 20
Leghorn, 18
Lisbon, 50
London, 35
Melbourne, 295 35 pks.
Messina, 190
Monterey, 30
M. Video, 25
Montreal, 150
Nagasaki, 200
New York, 225 25
N. Orleans, 50
Odessa, 335
Osaka, 100
Parahyba, 15
Pasages, 500
Penang, 10
Piræus, 65
Pt. Elizabeth, 20
Puerto Mount, 75
Rio G. do Sul, 25
Rio de Janeiro, 20
Rouen, 98
Salonica, 21
Samarang 9
San Sebastian, 100
Seville, 650
Singapore, 10
Stockholm, 15
Sydney, 228
Trieste, 30
Valparaiso, 95 1 cs.
Vigo, 10
Wellington, N Z., 17 brls.
Zacatecas, —

Chemicals *(otherwise undescribed)*
Havana, 4 t. 3 c. £20
B. Ayres, 5 1 1 q. 25
Fremantle, 10 3
Montreal, 5 85
Stettin, 1 29
Konigsberg, 1 29
M. Video, 14 17 59
Madras, 1 100
Odessa, 3 10 2 105
Calcutta, 57 18 169
Cairo, 20 brls. 65
Marseilles, 2 cks. 11
Trieste, 1 14
Bombay, 15 70

China Clay—
Baltimore, 237 cks.
Barcelona, 104
Bombay, 156
Boston, 1,744
Calcutta, 332
Lucknow, 140
Milan, 100 bgs.
Montreal. 40
New York, 628 1,002
Pasages 60
Philadelphia, 200
Toronto, 30

Citric Acid—
Vera Cruz, 2 c. £16

Coal Products—
Alizarine
Philadelphia, 4 cks.
Aniline Colour
Hong Kong, 10 cs.
New York. 24 cks. 3 brls.
Philadelphia, 9 2 1
Aniline Dyes
Genoa, 1 cs.
Aniline Salt
Genoa, 4 cks.
Leghorn, 3 kgs.
New York, 24 cs.
Carbolic Acid
Rangoon, 2 t. £14
Antwerp, 5 120
Montreal, 13 c. 42
Odessa, 3 1 q. 9
Rotterdam, 14 1 780
Barcelona, 4 8 288
New York, 1 17 3 131
Creosote Oil
Newport News, 250 brls.

Copperas—
B. Ayres. 4 t. 7 c. 3 q. £9

Copper Sulphate—
Antwerp, 4 t. 19 c. 1 q. £109
Konigsberg, 5 122
Stettin, 6 1 7
Copenhagen, 1 1 24
Cabadello, 10 13
Ghent, 19 2 22
Amsterdam, 9 19 1 224
Rio de Janeiro. 10 3 13
Catania, 7 11 166
Kingston, 1 5 30
Valparaiso, 2 13 2 65
Naples, 5 110

Disinfectants—
Rio de Janeiro, 4 c. 2 q. £38
Bombay. 2 t. 7 2 24
Montreal, 6 9
Calcutta. 1 3 6 cs. 18

Dried Blood—
Teneriffe, 10 t. 5 c. £87

Glycerine—
San Francisco, 2 cs. 17
Montreal, 12 t. 10 c. 1,750
Piræus, 8 3 q. 13
Bilbao, 54 10 2,046
Sydney, 1 19 7

Hamburg, 2 10 150
Kobe, 2 9 3 150
Yokohama, 5 230
Rotterdam, 9 9 1 545
New York, 29 6 755

Iron Sulphate—
Sydney, 2 t. £5

Lactic Acid
Philadelphia, 4 c. £6

Magnesia—
Adelaide, 10 cs.
Constantinople, 5 cks.
Detroit, 10
Vera Cruz, 6

Magnesium Chloride—
Bombay, 4 c. £5

Manure—
Genoa, 100 t. 1 c. 1 q. £373
Teneriffe, 10 6 98

Muriatic Acid—
B. Ayres, 13 c. 3 q. £14

Oxalic Acid—
Wellington, N.Z., 5 c. 3 q. £8

Paint—
Akassa, 7 cks.
Bahia, 500 kgs.
Belize, 80
Bilbao, 56 dms.
B. Ayres, 101
Calcutta, 11 2
Cardenas, 4
Cartagena, N.G., 25
E. London, 6
Guayaquil, 40
Havana, 7
Hong Kong, 280
Honolulu, 140
Iloilo, 10
Iquique, 20 cs.
Kingston, Ja., 100
Lisbon, 140 4 2
Malta, 1 4
Manaos, 44
Maranham, 180
New York, 100
Pernambuco, 22
Pt. Natal, 18 50
Pt. Said, 11 24
San Juan, 9
Santiago de Cuba, 4
St. John's, N'fd., 1,070 5
St. Nazaire, 32
Taltal, 6 1
Talcahuano, 70
Trieste, 12 8
Valparaiso, 4 139 54

Painters' Colours—
Alexandria, 30 bls.
Boston, 235 pks.
Calcutta, 5 cs.
E. London, 6 kgs. 12
Lisbon, 26 cks.
Melbourne, 67 kgs.
New York, 5 cks. 178 brls. 10
Ponce, 2
Pt. Piree, 9 kgs.
Talcahuano, 100
Yokohama, 150

Paraffin Wax—
Genoa, 100 bgs.
Gijon, 48
Leghorn, 145

Phosphoric Acid—
Bahia, 2 t. 10 c. 2 q. £32

Phosphorus—
Hiogo, 30 cs. £225
Kobe, 10 c. 75
Shanghai, 10 81
Vera Cruz, 4 14 2 q. 143

Phosphorus (Amorph.)—
Hiogo, 25 cs. £263
Kobe, 20 210
Yokohama, 11 116

Potash—
B. Ayres, 13 t. 2 c. £151

Potassium Bichromate—
Rio de Janeiro, 4 c. £8

Potassium Carbonate—
Pernambuco, 4 c. £5

Potassium Chlorate—
Bilbao, 1 c. £14
Carril, 1 t. 31
Christiania, 7 11
Hiogo, 50 1,556
Libau, 15 462
Shanghai, 3 99
Sydney, 5 150
Vera Cruz, { 3 10 / 6 cks 139

Potassium Prussiate—
Genoa, 14 c. 3 q. £50

Salammoniac—
Alexandria, 2 t. £64
Beyrout, 1 10 c. 48
Bilbao, 1 2 q. 34
Galatz, 1 33

Salt—
Abonnema, 10 t.
Adelaide, 10
Antwerp, 125
Baltimore, 180
Banana, 45
Bermuda, 10
Boston, 320
Brass, 10 1 s.
B. Ayres, 50
Calcutta, 2,252
Cameroons, 104 7
Cape Palmas, 12 10
Cape Town, 75
Chicago, 290
Christiania, 15
Conakry, 7 5
Degama, 50
Delagoa Bay, 25 14
E. London, 116 17
Eloby, 11
Galveston, 200
Ghent, 60
Halifax, 46 13
Hamburg, 50
Landana, 15
Malta, { 5 / 100 bgs.
Melbourne, 75 t.
M. Video, 11 1
Montreal, 1,068 2
N. Orleans, 365
New York, 165
Old Calabar, 40
Para, 612 10
Philadelphia, 32 10
Pt. Natal, 20
Rangoon, 800
Rotterdam, 210
St Petersburg, 208 6
Rouen, 10
Sagua la Grande, 30
San Francisco, 100
Santiago, 20
Sette Camma, 7 6
Sierra Leone, 110
Sydney, 100
Wellington, 54 19

Salt Cake—
New York, 5 t. 15 c. 2 q. £87

Saltpetre—
Vera Cruz, 13 c. £14

Sheep Dip—
B. Ayres, { 18 t. 8 c. 1 q. / 50 cks. £675
Buenaventura, 1 cs. 6
Calcutta, 150 dms. 40
Dunedin, 100 50
M. Video, 8 t. 10 c. 150
Wellington, 10 cks. 150 120

Soap—
Antwerp, { 100 bxs. / 916 cs.
Athens, 8
Barberton, 20
Beira, 260
Bombay, 7
Boston, 25 cks.
Brass, 660
B. Ayres, 3 20
Cairo, 60 40
Cape Town, 250 20
Christiania, 100
Colmar, 250
Corinto, 500
Delagoa Bay, 10
E. London, 52
Gibraltar, 701
Hong Kong, 160 kgs.
Iloilo, 100
Johannesburg, 200 bxs.
Karachi, 500 75
Lagos, 120
Larnaca, 13 pks.
Leghorn, 1
Madras, 5
Malta, 40
Manila, 4
Maranham, 4
Matadi, 50
Mendoza, 5
Para, 1
Pernambuco, 1
Piræus, 54
Pt. Limon, 2
Pt. Natal, 60
Pretoria, 6
Puerto Cortez, 50
Punta Gorda, 200
Rangoon, 5 115
Rawal Pindi, 18
Rotterdam, 618 160 dms.
Salonica, 50
Sierra Leone, 241
Smyrna, 30
St. John's, N'fd., 10
Surinam, 30 6
Tangiers, 40
Toronto, 2,500
Trinidad, 25 1
Valparaiso, 200 1

Soda Ash—
Aalborg, 400 bgs.
Aarhuus, 240
Baltimore, 800
Boston, 38 tcs.
B. Ayres, 84 brls.
" 163 cks.
Christiania, 320 5
Copenhagen, 770
Hiogo, 576
Johannesburg, 50
Kobe, 201
Hobart, 33
Madras, 30
Montreal, 200 kgs.
Odense, 240 bgs.
Paris, Ont., 125
Philadelphia, 1,200
Pt. Natal, 4 tcs.
Rotterdam, 534
Salonica, 20 brls.
Santander, 19
Skein, 50
Smyrna, 100
Sourabaya, 50
Sydney, 381
Talcahuano, 100
Toronto, 1,236
Trebizonde, 100
Trieste, 100 4
Venice, 100 77
Vigo, 10
Windsor Mills, 320

Soda Crystals—
Alexandria, 150 brls.
Antwerp, 20 cks.
Boston, 440 cs.
Bourgas, 34 brls.
Calcutta, 34 kgs.
Colombo, 20
Constantinople, 60
Delagoa Bay, 70 pks.
Geraldtown, 40
Leghorn, 20 cks.
Malta, 50
Montreal, { 112 10 / 75 pks.
Pt. Natal, 25
St. John's, N'fd., 10

Sodium Acetate—
Melbourne, 12 cks.

Sodium Bicarbonate—
Adelaide, { 100 bgs. / 200 kgs.
Algoa Bay, 40
Antwerp, 45 15 cks.
Calcutta, 600 6
Cape Town, 90
Christchurch, 34 18
Corunna, 7
Danzig, 21 pks.
E. London, 20 cks.
Fremantle, 285
Hiogo, 500
Kingston, Jam., 60
Kobe, 400
Launceston, 8
Leghorn, 50
Marseilles, 90 dms.
Melbourne, 200
M. Video, 15 cks.
Montreal, 400
Odessa, 350 dms.
Pasages, 75
Pt. Natal, 40
Quebec, 100
Rangoon, 20 bgs. 1 cs.
Rio de Janeiro, 7 kgs
Rotterdam, 40
St. John's, N'fd., 10
Stamboul, 65
Sydney, 150
Tokio, 100
Valencia, 100 5 cks.
Zanzibar, 20

Sodium Carbonate—
Antwerp, 78 bls.
New York, 126 brls.

Sodium Chlorate—
Antwerp, 10 kgs.

Sodium Hyposulphite—
Montreal, 65 kgs. 1 ck.

Sodium Naphthionate—
New York, 15 cks.

Sodium Prussiate—
Boston, 13 cks.

Starch—
Alexandria, 10 bls.

Sulphur—
Boston, 200 t. 2 c. £865
New York, 5 9

Sulphuric Acid—
Maranham, 1 t. 5 c. £20

Superphosphates—
Genoa, 145 t. 11 c. 2 q. £329
Gd. Canary, 7 10 26
La Pallice, 712 1,887
Lisbon, 1,333 5 2,952
Tarragona, 200 550
Valencia, 135 4 2 365

Tartaric Acid—
Havana, 5 c. £18
Talcahuano, 1 7

Tin Chloride—
La Libertad, 10 kgs. £47

Yarnish—
Alexandria, 2 cs.
Antwerp, 14 cks.
E. London, 3
Genoa, 10 brls. 17 pks.
Gibraltar, 4 dms.
Lisbon, 4 cs.
Oporto, 3
Rio G. do Sul, 2
St. John's, N'fd., 10 kgs. 5 brls. 40

White Lead—
E. London, 2 cks.
Malta, 8 kgs.
Sierra Leone, 10 dms.

Zinc Chloride—
Bombay, 2 t. 3 c. £33
Colombo, 5 11 2 q. 39
Maranham, 5 2 6

MANCHESTER.

Week ending September 13th.

Bones—
Treport, 302 bgs.

Chemicals *(otherwise undescribed)*
Bagdad, 30 brls.
Belgium, 9 cks.
Bushire, 14 8 cs.
Bussorah, 20
Germany, 113
Limassol, 2
Tunis, 8 9 dms.

Coal Products—
Carbolic Acid
France, 54 btls.
Pitch
Belgium, 208 t.

Colours—
Beyrout, 20 kgs.
Germany, 1 cs.

Copperas—
Alexandria, 105 brls.

Glycerine—
Germany 5 tins

Linseed Oil—
Alexandria, 15 brls.
Larnaca, 6

Paint—
Larnaca, 2 cks.

Painters' Colours—
Jaffa, 4 cks.

Paraffin Wax—
Hamburg, 8 cs.

Salt—
Limassol, 2 cs.

Sulphur—
Montreal, 5,333 bgs.

Tallow—
Holland, 10 cks.

GLASGOW.

Week ending September 14th.

Ammonium Carbonate—
Bergen, £16

Ammonium Sulphate—
Nantes, £275
Sables d'Ologne, 1,845

Bleaching Powder—
Calcutta, 30 t. 5 c.

Borax—
Amsterdam, £20
Johannesburg, 128
Rotterdam, 28

Caoutchouc—
Rangoon, £44

Chemicals (*otherwise undescribed*)
Calcutta, £40
Hamburg, 20
Coal Products—
Creosote Oil
Christiania, £16
U.S.A., 205
Pitch
Canada, £63
Genoa, 3,774
La Rochelle, 1,432 t. 5 c.
Rangoon, 26
Tar
Bombay, £51
Canada, 25
Christiania, 35
Hamburg, 28
Karachi, 55
Rangoon, 81
U.S.A., 43
Colours—
Calcutta, £25
Ottawa, 48
Dextrine—
U.S.A., £480
Dyestuffs—
Extract
Belgium, £33
Bergen, 2 t. 16 c. 2 q.
Canada, £39 13s.
Sumac Extract
Belgium, £23 14s.
Gelatine—
Transvaal, £261
Glue—
Alexandria, £30
Gutta Percha—
Rotterdam, 208 lbs.
Iodine
Rotterdam, £1,250
Iron Sulphate—
Karachi, £40
Lead Acetate—
Bombay, £178
Lead Nitrate—
Canada, £156
Linseed Oil—
Constantinople, 1 t. 13 c. 2 q.
Havana, 1 8 2
Kingston, Ont., 1 8 3
Santos, 1 14 1
Litharge—
Bombay, £37
Johannesburg, 26
Magnesium Sulphate—
Montreal, £38 13s.
Manure—
Durban, 5 t.
Nantes, £105
Ochre—
Calcutta, £45
Oxalic Acid—
Canada, £20 10s.
Paint—
Bombay, £214
Calcutta, 459
Cape Colony, 38
Havana, 55
Natal, 32
Porto Alegre, 26
Rangoon, 536
Singapore, 24
St John's, N'fd., 44
Turkey, 34
Painters' Colours—
Santos, £24
U.S.A., 43
Paraffin Wax—
Antwerp, £30
Bergen, 16
Cape Colony, 137
Cape Town, 110
Christiania, 1 t. 1 q.
France, £53 15s.
Rotterdam, 20
Singapore, 24 10
Potassium Bichromate—
Antwerp, £84
Bombay, 156
Canada, 350
New York, 450
Rotterdam, 56
Verviers, 34
Rosin Oil—
Algoa Bay, £35
Soap—
Bergen, 1 c. 2 q.
Bombay, 3 t. 8
Canada, 2 7 1
E. London, 10
Rangoon, 2
Sodium Bichromate—
Antwerp, 5 t. 3 q.
Bombay, 1 7 c. 2
Canada, 3 18 2
Nantes, 5 1 2
New York, 5 1 3
Verviers, 2 16 3
Starch—
Rotterdam, 13 c. 3 q.
Sulphuric Acid—
Rangoon, £392
Superphosphates—
Sables d'Ologne, £125
Tallow—
Alexandria, £32
Transvaal, 1 t. 18 c.
Turpentine—
Calcutta, £71
Singapore, 38
Varnish—
Calcutta, £31 10s.
Rangoon, 37
White Lead—
Natal, £97
Rio Grande, 1 t. 1 c.

HULL.

Week ending September 9th.

Alkali—
Abo, 2 cks.
Riga, { 250 bgs. / 35 cks.
Ammonia—
Bergen, 50 bgs.
Bleaching Powder—
Boston, 98 cks.
Borax —
Christiania, 2 cs.
Carbon—
Amsterdam, 23 t.
Caustic Soda—
Antwerp, 20 cks.
Chemicals (*otherwise undescribed*)
Amsterdam, 101 cks. 5 cs.
Christiania, 6 pks.
Copenhagen, 12 10 bls.
Genoa 3
Gothenburg, 1 43
Hamburg, 10 16
Leghorn, 20
Marseilles, 50 dms.
Naples, 4
New York, 19 20 12 pks.
Rotterdam, 14 109
Rouen, 35
St. Petersburg, 26
Stockholm, 22
Coal Products—
Naphtha
Bordeaux, 25 dms.
Pitch
Aalesund, 30 cks.
Antwerp, 162 t.
Rouen, 100 bgs.
Tar
Copenhagen, 10 cks.
Gothenburg, 20
Stettin, 5
Cottonseed Oil—
Amsterdam, 10 t.
Antwerp, 1
Bremen, 3 9 c.
Christiania, 4
Gothenburg, 13 16
Hamburg, 10
Norrkoping, 2
Rotterdam, 14 18
Rouen, 1 5
Dyestuffs (*otherwise undescribed*)
Boston, 8 cks.
Genoa, 20 3 cs.
St. Petersburg, 6
Linseed Oil—
Bergen, 4 t. 5 c.
Christiania, 2 6
Drontheim, 6 10
Genoa 1 16
Hamburg, 3 8
Rotterdam, 1 14
Stavanger, 1 16
Manure—
Dunkirk, 1,000 bgs.
Riga, 2,217
Painters' Colours—
Abo, 1 cs.
Amsterdam, 1 dm.
Antwerp, 293 cks. 1 14
Bergen, 3
Christiania, 15 1
Copenhagen, 3 3
Danzig, 8 1
Drontheim, 2
Dunkirk, 10
Genoa, 7
Ghent, 28 33
Gothenburg, 50 20
Hamburg, 12
Hango, 2
Harlingen, 200 pks.
Marseilles, 6
Naples, 1
New York, 25
Norrkoping, 10
Rotterdam, 35 4
Rouen, 10
Stettin, 17 10
St. Petersburg, 100
Stockholm, 8
Soap—
Amsterdam, 26 cs.
Drontheim, 1
Starch—
Rouen, 4 cks.
Superphosphates—
Norresundby, 573 t.
Turpentine—
Bergen, 1 brl.
Rotterdam, 1 ck.
Varnish—
Antwerp, 2 cks. 1 cs.
Gothenburg, 3
Stettin, 17

TYNE.

Week ending September 9th.

Alkali—
Abo, 55 t. 7 c. 3 q.
Amsterdam, 31 8 3
Bergen, 2 15 2
Gothenburg, 19 17
Rotterdam, 3 12
Ammonium Sulphate—
Rotterdam, 25 t. 5 c. 3 q.
Antimony—
Antwerp, 1 t.
New York, 60
Rotterdam, 10
St Petersburg, 25
Barium Binoxide—
Rotterdam, 10 t. 15 c. 1 q.
Barium Carbonate—
Hamburg, 151 t. 7 c. 2 q.
Rouen, 10 4
St. Petersburg, 52 5
Bleaching Powder—
Amsterdam, 20 t. 1 c. 3 q.
Antwerp, 42 1 3
Christiania, 20 1
Drontheim, 10 8
Hamburg, { 4 10 2 / 125 brls.
New York, 49 15 c. 3
Rotterdam 7 8 2
St. Petersburg, 103 3 1
Bone Grease—
Genoa, 5 t. 3 q.
Bones—
Dunkirk, 13 t. 2 c. 2 q.
Caustic Soda—
Abo, 35 t. 3 c. 3 q.
Antwerp, 30 7 3
Christiania, 2 18
Copenhagen, 7 16 2
Hamburg, 9
N. Orleans, 40 15
Stavanger, 2 18
St. Petersburg, 130 2 1
Copperas—
Bergen, 1 t. 1 c.
Hydrochloric Acid—
Ergasteria, 3 c. 3 q.
Linseed Oil—
Ergasteria, 4 c. 1 q.
Litharge—
Copenhagen, 5 c. 2 q.
Hamburg, 1 t. 12
Magnesia—
Barcelona, 6 t. 17 c. 3 q.
Genoa, 6
,, 1,072 lbs.
Magnesium Carbonate—
Genoa, 15 c.
Manure—
Barcelona, 125 t.
Genoa, 20
Valencia, 118
Orange Lead—
St. Petersburg, 2 t. 12 c.
Paint—
Christiania, 3 c.
Copenhagen, 1 t.
Rotterdam, 1 dm.
Painters' Colours—
Antwerp, 4 c.
Hamburg, 11 3 q.
Rotterdam, 12
Phosphorus—
Barcelona, 2 t. 5 c. 1 q.
Pearl Hardening—
New York, 36 t. 10 c. 2 q.
Red Lead—
Aalborg, 1 t. 2 c. 3 q
Abo, 10
Bergen, 3 17 3
Copenhagen, 1 2
Genoa, 19 15 3
Hamburg, 10 19 3
New York, 5
St. Petersburg, 13 10 3
Soda—
Abo, 6 t. 16 c.
Amsterdam, 20
Christiania, 16 1
Constantinople, 24 7
Rotterdam, 10
Soda Ash—
Bergen, 37 t.
Hamburg, 20 5 c. 2 q.
New York, 16 4 3
Sodium Hyposulphite—
Antwerp, 3 t. 3 q.
New York, 10
Sodium Sulphate—
Abo, 5 t. 3 q.
Sulphur—
Abo, 50 t.
Christiania, 10
Gothenburg, 20
Superphosphates—
Helsingborg, 800 t.
Turpentine—
Bergen, 3 c. 3 q.
White Lead—
Copenhagen, 1 t. 3 q.
Rouen, 5 c.

GOOLE.

Week ending September 6th.

Chemicals (*otherwise unascribed*)
Amsterdam, 2 cks.
Antwerp, 20
Hamburg, 5 pks. 8 dms.
Rotterdam, 6
Coal Products (*otherwise undes.*)—
Amsterdam, 166 cks.
Antwerp, 1
Boulogne, 38 4 dms.
Rotterdam, 29
Coal Products—
Benzol
Boulogne, 76 cks.
Hamburg, 16 dms.
Dyestuffs (*otherwise undescribed*)
Hamburg, 10 cks.
Manure—
Hamburg, 228 bgs.
Painters' Colours—
Antwerp, 1 ck.
Hamburg, 1 cs.

GRIMSBY.

Week ending September 9th.

Alkali—
Antwerp, 10 kgs. 2 cs.
Dieppe, 1 ck.
Port au Prince, 87 dms.
Caoutchouc—
Gothenburg, 2 bs. 1 pk.
Malmo, 2
Chemicals (*otherwise undescribed*)
Dieppe, 2 cks.
Coal Products (*otherwise undes.*)—
Dieppe, { 1 kg. / 84 cks.
Colours—
Port au Prince, 8 cs.
Manure—
Esbjerg, 3,057 bgs.
Hamburg, 2,134
Painters' Colours—
Antwerp, 40 cks. 1 cs.
Hamburg, 12 1

PRICES CURRENT.

WEDNESDAY, Sept. 20, 1899

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 & 8/3		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	18	15	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. .. per ton	11	17	6
,, ,, (grey) Hull .. .. ,,	11	15	0
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	5	5	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	11	10	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	8½
,, 50/90 ,, ... ,,	0	0	10½
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	13	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	2½
Copper .. .. per ton	76	12	6
,, Sulphate .. .. ,,	26	0	0
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	29	10	0
,, (distilled S.G. 1260°) .. .. ,,	50	0	0
Iodine .. .. nett, per oz.	0	7	1½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	16	12	6
,, Litharge Flake (ex ship) .. .. ,,	17	10	0
,, Acetate (white ,,) .. .. ,,	21	15	0
,, ,, (brown ,,) .. .. ,,	18	0	0
,, Carbonate (white lead) pure .. .. .. ,,	22	0	0
,, *Nitrate* .. .. ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	5	0
,, ,, (grey) (ex ship) .. .. ,,	7	17	6
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	10	0
Linseed .. .. ,,	23	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	10	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % .. per ton	23	15	0
,, ,, ,, 75/80 % .. ,,	18	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	15	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz	0	2	3 5/16
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	3	0	0
,, Acetate (ex-ship) .. .. ,,	13	7	6
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	10	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	10	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	7	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	4½
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	5⅞
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100° Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	5	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4½
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	26	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	149	10	0
Zinc (Spelter) .. .. ,,	22	10	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

CHEMICAL TRADE JOURNAL

AND

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EDUCATION—USEFUL AND ORNAMENTAL.

ONCE more we are on the threshold of another educational session, and naturally the discussion of the different forms of education, and the facilities for exercising them have been much to the fore during the last few weeks. The restarting of technical schools and institutes affords many opportunities for the expression of opinions by those who are interested in the spread of education, and in some cases pertinent remarks have been made by the respective speakers.

Of course there are differences of opinion. For example, Sir J. Brunner admitted to the students of Runcorn that as far as the much talked-of "struggle of life" was concerned, he had not found life a struggle. This optimism will doubtless do much to encourage students who are living in a centre of the chemical industry, and thus counteract the depressing influences which surround them. It is not wise, in one sense, to tell students that men of years and armed with a university education are daily grasping at the handsome salary of £80. a year with the avidity of desperate men. There was, moreover, something on which to ponder, and to be realised in Sir John's statement, that their lives would be much less of a struggle if they would fight with society rather than against it.

On the other hand, Mr. M. E. Sadler, of the Educational Department, unhesitatingly told the young students of Manchester that things were going to get much more difficult. The struggle for every one of them was going to be keener than it had been for their fathers. It was going to be much more necessary for them to be constantly alert in point of mind, to have their stock of knowledge always within reach, and on a wider scale. He did not pretend that the prospect was a pleasant one, and, looking the facts straight in the face, he said the best way of meeting the real and pressing difficulty which was before them was to avail themselves seriously and earnestly of the great advantages of education.

This brings us to the consideration of what is about to be taught, and the suitability, or availability of the knowledge imparted. On this aspect of the question Mr. Sadler is most emphatic, for in speaking of the wide circle of educational institutions in the neighbourhood of Manchester, he urged that the great difficulty which had to be faced was this—in education quality mattered more than quantity, and quality meant fitness for the purpose for which an institution is designed.

Now there is much to be learned by analogy, no matter how remote from each other the spheres of experience may be, and a fact which is full of suggestion has been stated this week by Mr. Chas. Manners for the benefit of aspirants to the operatic stage. He points out that colleges and conservatoires teach the rising rank and file of operatic vocalists much that is useless. Trouble and time are spent in the endeavour to render solos decently—solos which the aspirants will probably never sing—whereas a mastery of the choruses would earn

them bread and cheese at once and afford a stepping-stone towards success for the gifted ones. His own experience was that, after studying at home and abroad, he had still to start at the bottom, and set to work to learn the choruses he had never been taught in the whole of his training. Anyone with a decent voice and *knowing* the choruses has as good a chance as he had, and would be getting daily training for better things. It is singular that, to-day, he should have to warn students against the self-same errors of judgment in their tuition as he fell a victim to.

On precisely parallel lines it is the bounden duty of all who are responsible for the *curriculum* of our technical schools and institutes to re-model their methods according to the experience of the past, and to see for a certainty that they are training all those who have a decent education, in the things that will be of service to them. There is a certain percentage who constitute the rank and file in the industrial as well as in the operatic world. They have to see their way to bread and butter early in life, and unless fittingly equipped feel sadly the stress of the "struggle," which we are glad to know Sir John Brunner has never experienced. This class, as a general rule, pass through institutes to obtain their equipment. Some are corks, and some are stones, but the majority are neither the one nor the other, and we should aim at teaching the majority, so that they may float to their level as quickly as possible. By some educational schemes we select the corks with greater rapidity, and so can show more startling records, but numbers of those who constitute the mass of mediocrity are petrified by these methods, and never attain to *their* best, however humble it may be. The advantages of education in its fullest and most legitimate sense are always open to the corks; for the partially petrified ones they are as "caviare to the general."

This is a stubborn fact, and however excellent the idealistic theories of education may be, still in catering for the pressing needs of the majority, utility must be considered first. To make provision for the conversion of sows' ears into silk purses, is not justifiable because one mole has been found in the sty. The majority are sows, and aim at becoming pig skin. If any moles present themselves, they will assuredly find their way to the furriers.

Obituary.—We much regret to hear of the death of Jacob F. Schoellkopf, president of the firm of Schoellkopf, Hartford and Maclagan, of New York. Mr. Schoellkopf was born in Southern Germany about seventy-four years ago. He went to the States in his early days, and has been connected with the milling, leather, tanning, and chemical trades. He owned the Hydraulic Canal at Niagara Falls, from which, of late, considerable developments of electrical power have been obtained. He was closely identified with the early growth of Buffalo, and made that city his home. Mr. Schoellkopf has not been actively engaged in business during the past several years, but he kept himself well informed as to the general situation. His firm have been subscribers to the *Journal* from quite its early days.

British Fire Prevention Committee.—The arrangements of the British Fire Prevention Committee for the winter session will include a comprehensive series of fire tests, to which it has been decided to invite distinguished guests from abroad. In October there will be further investigations with floors and doors of various materials, and the operations of the testing station will then probably be extended to experiments with automatic fire alarms. Would-be members are reminded that election after October 1st of this year will not necessitate a fresh subscription for the coming year; but, on the other hand, an entrance fee is to be instituted in addition to the annual one guinea subscription. Membership will henceforward give the right to the provision of the reports of the testing station beyond the ordinary publications of the committee. Special arrangements have been made by which local authorities can take up membership if represented by an individual member or official, and several local authorities have already availed themselves of this facility.

FERTILIZER TRADE OF SAVANNAH.

THE manufacturers of fertilizers at Savannah have very little to complain of as a result of their past season's business, just ended, for although the total business done in the State of Georgia shows a decrease of 22 per cent, as compared with last year (320,000 tons sold this year, as against 425,000 tons last), Savannah manufacturers have not only held their own, but in some instances have actually increased the volume of their business. This has only been accomplished by hard work and good judgment in buying their supplies of crude material early in the season at the lowest market prices.

The business done has been to a large extent at the sacrifice of prices, which have ruled at an average af 1 dol. per ton reduction as compared with the season ending September 1, 1898. This reduction in price was caused, not by material being made cheaper during the past season, as compared with last, as the prices of material ruled about the same, but on account of the low prices the farmers received for their cotton in the season of 1898-99, compelling them to use less fertilizer than formerly, not only in this State, but also in Carolina, Florida and Alabama; this curtailment of the demand caused the manufacturers of fertilizers to cut their prices for fear of carrying over stocks.

Collections in the Fall of 1898 were better than expected at one time; with anything like a fair price for cotton they should be good this Fall, as more care than usual has been exercised in extending credits.

The three factories located at Savannah have a combined product of about 100,000 tons when run to their full capacities; fertilizers are also handled to a considerable extent by the cotton factors in Savannah, most of them being supplied by the local manufacturers.

Savannah's proximity to the rock fields of Carolina and Florida places her in position to manufacture fertilizers on as close a margin as her competitors, and enables her to control a large proportion of the territory adjacent to Savannah, but the high freights on the manufactured product render the margin very close when goods are sold in competition with interior factories.

The outlook for the coming season's business at this time is not very satisfactory, and is not likely to improve, unless there should be a material advance in the price of cotton. The price of phosphate rock, which is the basis of all fertilizers, has advanced considerably as compared with the same time last year. The price of ammoniates is also up, and as manufacturers generally had very little stock carried over from last year, they are compelled to buy at the advanced prices. This should result in higher prices for the manufactured product the coming season, but this will be difficult to get. So far as the price of phosphate rock is concerned, it is believed to have reached its maximum; the advance was caused not only by the large demand in this country, but by very heavy exports to Europe, the total movement for six months this year being 650,000 tons, as against 460,000 tons last. The price of this material is expected to decline as soon as Europe begins to feel the effect of the Algerian shipments, a French company being under contract with the French Government to mine and ship 200,000 tons of rock per annum, all of which will naturally seek a market at European ports. This work is now being placed on the market. The following table will show the prices received for the different grades of fertilizers for the season: Ammoniated fertilizer, 13dols. 25c. to 14dols. 25c., time basis; acid phosphate, 12 per cent. guarantee, 7dols. 58c. to 8dols; acid phosphate, 10½ per cent. guarantee, 9dols. to 10 dols.

The above prices were realised only where small quantities were purchased, there being a slight reduction where large quantities were desired, but inasmuch as the bulk of the trade consisted in sales of small lots, prices on the total output varied very little from the above quotations.

The following tables show how the transportation of fertilizers was distributed. Shipments of fertilizers (in tons) from Savannah during the season of 1898-99:

	Tons.
Central of Georgia Railway Co.	68,898
Georgia and Alabama Railway	11,010
Plant System	11,689
Florida Central and P. Railway	1,480
Savannah River Boat Line	3,000
Total shipments	96,027
Total Shipments 1897-98	99,930
Total Shipments 1896-97	96,919
Total Shipments 1895-96	70,000

Fertilizer Imports at Cullera.—During 1898 the following fertilizers were imported into Spain at Cullera:—Artificial manure, 371 tons, valued at £2,600.; sulphate of ammonia, 2,307 tons, valued at £23,070.; superphosphate of lime, 179 tons, valued at £450.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR ENGLISH LETTERS PATENT.

Manufacture of Anthranitic Acid. B. Willcox. 18,319. September 11.

Manufacturing of Metallic Alloys. J. B. de Alzugaray. 18,329. September 11.

Separation of Metacresol and Paracresol. F. Raschig. 18,334. Sept. 11.

Improvements in or Relating to Electrolytes. Q. Marino. 18,350. September 11.

Electrolytic Deposition of Metals. C. V. Burton. 18,438. September 12.

Dyeing Wood and Apparatus for use in connection therewith. J. Pfister, H. Paetz and L. Lewin. 18,498. September 13.

Manufacture of Hydrogen Cyanide. E. Beringer. 18,565. September 14.

Treatment of Producer Gases and Apparatus therefor. E. J. Duff and The United Alkali Co., Ltd. 18,580. September 14.

Improvements in or Connected with Gas Producers. E. J. Duff and The United Alkali Co., Ltd. 18,581. September 14.

Improvements in Superheaters to be used in connection with Gas Producing Apparatus. E. J. Duff and The United Alkali Co., Ltd. 18,582. September 14.

Decomposition of Alkaline Salts by Electrolysis and Apparatus therefor. J. Greenwood. 18,589. September 14.

Amalgamation and Coating of Metals or Alloys by the Aid of Electricity. F. H. Suyder. 18,643. September 15.

Regeneration of Cyanide Solutions employed for the Recovery of Gold, etc. A. F. Crosse. 18,648. September 15

Manufacture of Silicon. B. Scheid. 18,659. September 15.

A Safety Can for Liquids, such as Petroleum, Benzine, and such like. F. Henze, J. Cohn, and W. H. Schmttz. 18,719. September 16.

Separators for the Plates of Secondary Batteries. H. Leitner. 18,743. September 16.

Manufacture of Fire Resisting Materials. The British Uralite Co., Ltd. 18,747. September 16.

Combined Tanning and Dyeing Process. F. W. Wartenberger. 18,755. September 16.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improved Process for Purifying Salt. H. Y. Castner, 13, Abchurch-lane, London. Eng. Pat. 21,284. October 10, 1898.

Very pure salt is a desideratum in many chemical and electrolytic processes. To obtain this pure salt, advantage is taken of the fact that brine saturated with sodium chloride will still dissolve about 6½% of sodium sulphate at 34° C. Common brine is purified in the usual way, and yields solid salt containing from 1% to 2% of sodium sulphate. This is treated to successive or fractional washings with a saturated solution of sodium chloride. From 60 to 190 gallons will be necessary to remove the sulphate from a barrel of salt, the task occupying two to five hours. The washing brine gradually becomes richer and richer in sulphate of soda, and is discarded when it contains between 5½% and 6½%. By cooling to freezing point, most of the sulphate will crystallise out, so that the brine can be used again for washing.

Process for the Manufacture of Bisulphite of Soda. F. M. E. Basse and G. Faure, both of La Fage, France. Eng. Pat. 23,978. November 14, 1898.

The gases from roasting sulphide ores, or from some other source of sulphur dioxide, are led to the bottom of an absorption vat. This vat is fitted with a false, perforated bottom, carrying a layer of soda crystals. These are gradually dissolved by the introduction of steam through jets just beneath the false bottom, thus presenting a constant spray of sodium carbonate to the rising gases, forming bisulphite of soda solution, which collects at the bottom of the tank. By regulating the steam supply according to the temperature of the entering gases, a solution testing 35° to 36° Bé. can be obtained constantly, this being the usual commercial strength. Solutions testing above 36° Bé. deposit crystals of bisulphite. If the whole of the sulphur dioxide is not absorbed it can be passed through a second absorber. There is one figure.

Manufacture of a Guttapercha-like Substance. A. Gentzsch, 1, Stiftgasse, Vienna, VII. Eng. Pat. 15,255. July 25, 1899.

Wax of high melting point is kneaded with caoutchouc to produce a mass having the properties of guttapercha. If desired, a certain amount of oil may be added. Thus 40 parts of palm wax and 10 of oil (from which all water has been extracted by previously heating) is mixed with crude caoutchouc and kneaded in a machine. The temperature is gradually raised to 200° C., when a homogeneous mass is obtained. As waxes with a sufficiently high melting point are scarce, the melting point of other waxes may be raised according to the patentee's specification 4,902 of 1899. (*C.T.J.*, 625, p. 313).

Improved Process for the Manufacture of Varnish. A. P. Bjerregaard 12, St. Andrews-place, Brooklyn, N.Y., U.S.A. 15,310. July 25, 1899.

The chief objects of this invention are to simplify the process of making varnish, and to provide a process by which particles of raw gum of any degree of fineness may be used without danger of burning the same. According to the description of one method of preparing varnish in this way, about 60 lbs. of Kauri gum are mixed with 15 gallons of raw, unboiled linseed oil. This mixture is heated until the gum becomes fluid, which takes place at about 350° F. The heating is then continued with agitation up to about 600° F., when a satisfactory varnish is produced. After cooling, the varnish is thinned with turpentine in the usual way. To increase the drying power a small amount of litharge and precipitated borate of manganese is finally incorporated. If non-drying oil has been used a proportionately larger quantity of driers must be employed.

Improved Process for Extracting India-rubber or Gutta-percha from Vegetables which contain them. J. G. Deiss, Salon, Bouches-du-Rhone, France. Eng. Pat. 12,538. June 15, 1899 (under International Convention, February 14, 1899).

The bark, etc., after being bruised is steeped for 5 or 6 days in a solution of sulphuric acid testing 50° Bé. The ligneous matter is thus decomposed. After draining the acid off and washing the residue, the latter is passed through a rolling mill, in which a current of hot water is continually passing. This dilutes the ligneous matter, and forms a pulp, which is carried away, whereas the rubber agglomerates under the pressure of the rolls and collects into slabs. The acid can be used again after concentration.

AN ANTIDOTE TO THE ATBARA INCIDENT.

WRITING to the "Times," last week, the Editor of the *Miller* says:—As it has long been a standing boast of Hungarian millers that it was quite impossible for English millers, with the wheat of the world at their disposal, to make flour equal in quality to that made in their mills, the proprietors of the *Miller* newspaper determined to offer some time ago a prize, value 50 guineas, for samples of flour milled under the supervision of experts specially appointed by themselves from any wheat except Hungarian. Twenty-five millers, representing all parts of the United Kingdom, entered for this competition, in which were included a sample of the highest grade of Hungarian flour and another of a mixture of this and a second grade. There were, therefore, 27 samples in all in the competition. The flours have been submitted to every kind of test by a jury consisting of Mr. Wilson Marriage, Colchester; Mr. William Smith, Preston, (both ex-presidents of the National Association of British and Irish Millers); Mr. Wynn, Hull, president of the National Association of Master Bakers; Mr. Lyon, nominated by the Scottish Master Bakers' Association; Mr. Callard, of Messrs. Callard, Stewart, and Watt, bakers, Regent-street, representing the trade of the metropolis; and Mr. Percy Young, flour factor, 72, Mark-lane, E.C.

The contest took place at the International Bakers' Exhibition, Agricultural Hall, during last week, and the baking was conducted at the National School of Bakery, Borough Polytechnic Institute, by Mr. J. Blandy, assisted by Mr. J. H. Cobley, teacher of baking at this institute.

After the closest scrutiny, extending over three days, the judges, who were completely unaware of the origin of the various samples on which they were adjudicating, unanimously selected four of the competing flours as the best, which were afterwards found not to include the Hungarian samples. That manufactured by Messrs. Wm. Vernon and Sons, of Liverpool, who were competing with their "Millennium" flour, was awarded the prize.

In the final baking of the four best flours another brand of top-grade Hungarian flour was used, and this also was not considered by the judges as equal to the English samples.

The competition has created a very lively interest among millers throughout the country, and I think the result cannot but be of national interest.

American Iron and Steel in Germany.—American iron and steel imports into Germany are beginning to assume quite unexpected proportions. There is now no better market for machinery and tools than Germany, and English imports *via* London and Liverpool have also increased 70 per cent. over last year. It is understood that the Garvin Machine Company and the Niles Toolworks are going to erect big works in Berlin, and other important American firms, among them the Buffalo Forge Company, are mentioned and expected to follow suit. An average of £2,400. value of iron tools alone are imported weekly from New York *via* Hamburg at present.

Reports of Companies.

BAGNALL OIL CO., LTD.

THE Secretary has issued a statement to the effect that a representative of the company has left for Canada with the object of furthering the construction of a railway through 20 or 30 miles of the oil property. This is to join the Atlantic and Lake Superior Railway, and to connect the inter-colonial railway and thus enable the new oil refineries and pipe lines to supply oil per railway tanks to all parts of Canada, and to permit direct communication in bulk steamers of oil from Canada to the company's tankages situated in the dockyard of the Ship Canal. It is also stated that the project has secured support from the Canadian Dominion and Quebec Governments. The various Governments have guaranteed subsidies of nearly 10,000 dols. for every mile of railway to be built to connect the Canadian oilfields with the various railways in Canada. Mr. Bagnall's power to reorganise the Atlantic and Lake Superior Railway Company has been fully ratified, and he has been authorised to appoint six new English directors. The new board of directors are empowered to issue £1,000,000. of debentures on the present erected portion of the Atlantic and Lake Superior Railway, and the Quebec Government guarantees 4 per cent. interest on this amount until the year 1915. The Canadian Dominion are this year erecting at one terminus of the railway complete wharfages to make the port of Paspebiac and the Bay of Chaleur, in the county of Gaspe, a harbour suitable for oil vessels from England and Europe.

BRITISH DYEWOOD AND CHEMICAL CO., LTD.

The second ordinary general meeting of this company was held in the hall of the Institute of Accountants and Actuaries, 218, St. Vincent-street, Glasgow, last week. The Chairman said: "In rising to move the adoption of the balance-sheet and statement of accounts, I may say that the balance at the credit of profit and loss is not so large as we hoped it might have been. There are several reasons for this. For some time we did not get the full benefit of the amalgamation of the four firms which now form this company, and we have had to contend throughout the whole period with higher costs for wages and coal. We cannot at present look for cheaper coal, but in other directions we are reducing working expenses. There was great slackness, too, in several of the trades on which we depend to a great extent for our sales. If you turn to the balance-sheet I think you will agree with me that it is satisfactory. Our liabilities are very small, and we have a large amount of liquid assets taken into the balance-sheet at a very safe figure. With improving trade both our sales and our profits should again increase. The directors hold all the Ordinary shares in the company, and the Preference shareholders may rest assured that they will do the best they can to bring this about." The report and balance-sheet were then unanimously adopted, and a dividend at the rate of 5 per cent. per annum, under deduction of income-tax, on the Preference shares for the half-year ending 30th June last, and a dividend at the rate of 2 per cent. per annum, free of income tax, on the Ordinary shares for the period from 20th May, 1898, to 30th June, 1899, were declared.

DIVIDEND.

Anglo-Sicilian Sulphur Company.—The directors have declared a dividend of 6d. per share on the ordinary shares.

MANUFACTURE OF SODIUM NITRITE.

DETAILS of the manufacture of nitrite of soda are very scarce in chemical literature; it will therefore be of interest to briefly describe the production of this substance, which is now very widely used in the dyeing industry. The raw material used in its manufacture consists of purified Chili saltpetre, and although the presence of sodic chloride may interfere with the value of the nitrite, the re-crystallisation of commercial saltpetre, with a view to the elimination of the sodic chloride, is not practised, as the expenses connected with the operation would be too great.

THE PROCESS.

The saltpetre is melted in large cast-iron vessels, an operation which includes the evaporation of the hygroscopic water, and the decomposition of a part of the iodides and iodates which accompany the saltpetre. At 310° saltpetre begins to fuse, and before adding the lead necessary for its decomposition the temperature is raised to about 400–420°.

The lead should be as pure as possible, as the presence of small quantities of other metals might cause the decrepitation of the whole charge; it is, above all, antimony which is the most to be feared; the lead used must be in thin sheets. About 280 parts of lead are necessary for 100 parts of saltpetre. As soon as the melted saltpetre has reached the desired temperature the necessary quantity of lead is gradually added; at the same time the whole must be kept constantly stirred so as to obtain a very intimate mixture. It is necessary to carefully watch that the charge does not become too strongly heated, for fear the vessel might be pierced; in case of emergency, to prevent such an accident, a quantity of cold saltpetre must be added, or the fire withdrawn. When all the lead has been added the stirring must still be kept up for some time, and the melted mass is then removed by means of a large cast-iron ladle. It is then run in the form of fine threads into cold water in which its solution is helped by constant stirring. The decomposition of the saltpetre by the lead at 420—500° has the effect of producing, besides the nitrite, about 1 per cent. of caustic soda, which dissolves a certain quantity of the oxide of lead formed; this latter should also be removed. This is generally effected by neutralising with nitric acid; in this manner saltpetre is re-formed, while the oxide of lead is precipitated in the state of insoluble hydroxide. We may also use nitrate of lead or sulphuric acid for neutralising the solution; sulphuric acid is preferable on account of its low price, but we then obtain sulphate of soda, which is deposited in the concentrating vessels in the form of anhydrous salt. We thus have in aqueous solution nitrite, undecomposed saltpetre, caustic soda holding oxide of lead in solution, and the soluble impurities of the saltpetre, such as chloride of sodium, etc. The insoluble residue consists of oxide of lead, a very small quantity of metallic lead, which has escaped oxidation, and a certain proportion of peroxide of lead. The solution diluted to about 6–8° Baumé is neutralised with nitric acid (or dilute sulphuric acid), or again with a solution of nitrate of lead); the oxide of lead in solution is precipitated, and the addition of the acid is continued as long as a precipitate is formed.

AN ERROR CORRECTED.

We may here correct an error which has slipped into most treatises on chemistry; many authors state that nitrite of sodium has an alkaline reaction, but this is not the case—the pure nitrite is absolutely neutral.

The neutralised solution separated from the insoluble residue by any convenient method is concentrated in cast-iron basins until it reaches 42–45° Baumé when warm.

The insoluble residue is thrown on a large filter of coarse material, such as sacking, washed with warm water, and the wash-waters added to the principal solution. The residuary oxide of lead is capable of various applications, which will be dealt with directly. The concentrated solutions are added together in cast-iron vats and left to crystallise; if the crystals thus obtained are not pure they must be re-dissolved and re-crystallised. The pure crystals are separated in a centrifugal machine, washed, dried, and packed.

The desiccation takes place in an oven, the temperature of which is carried to about 50°, and the crystals are packed in cylinders of double thicknesses of parchment paper.

The residuary oxide of lead may be either melted and cast as it is, reduced to the metallic state, or transformed into minium; it can also be used for the preparation of white-lead, of nitrate, acetate, or other plumbic compounds.

THE ANALYSIS OF THE NITRITE

is generally made with a titrated solution of permanganate of potassium. By dissolving 9·594 grms. of permanganate in 1 litre of water we obtain a solution, each c.c of which is equal to 1 centigrm. of nitrite of sodium.

The analysis is carried out in the following manner:—A known quantity of the nitrite is rapidly weighed and dissolved in an Erlenmeyer flask of 150—200 c c. capacity with about 80 c.c. of water. To this solution are added a few c.c. of dilute sulphuric acid (1 : 4), and it is then titrated. When the colouration begins to disappear with difficulty, a fresh quantity of sulphuric acid, much stronger than the last, is added, as there is now no longer any danger of nitrous acid escaping. The addition of the permanganate is continued drop by drop until the rose tint is permanent for about a quarter of an hour.

To hasten the final reaction the solution may be heated towards the end of the operation to 30—40°. The analysis of the melted mass is carried out in the same manner as is that of the oxide of lead to see if the washing was thoroughly done.—*Chemiker Zeitung.*

Borough Polytechnic Institute.—We have received a copy of the syllabus of this Institute for the 1899-1900 session, which commenced this week. It is illustrated with cuts of the cookery school, laboratories, and gymnasium, and in addition to the particulars of technical classes connected with science, art, and crafts, it contains particulars of the social side of the Institute. It can be obtained from the secretary of the Institute, St. George's Circus, S.E.

COMPOSITION OF BRANDY.

IN connection with the Health Congress last week, the section dealing with chemistry and meteorology met at the Talbot Road Schoolrooms, Blackpool, under the presidency of Dr. Thresh.

A discussion upon the composition of brandy was introduced by Sir Charles Cameron. He said our Continental neighbours were producing by chemical means bodies possessing the necessary flavour and strength for the imitation of good brandy. Immense quantities of alcohol were produced by the fermentation of starch in various kinds of grain. That quantities of brandy held out as Cognac were not what they were said to be was clear from the fact that the wine produced in the Cognac district and used for distillation was quite insufficient to produce the large quantity of spirit sold under the name of Cognac brandy. The important question was whether the artificial product was equal to the real article. However we might endeavour to imitate genuine brandy, the medicinal properties could not be the same.

Professor W. R. Smith said it had been perfectly clear for some time past that we were not getting pure wine-spirit as brandy, and therefore, medicinally, we were not obtaining the restorative which we expected to get. Statistics prepared by the French Government afforded convincing proof that the deficiency of the wine-spirit from the vines had to be made up in some other way, and the inference was that it was obtained from grains and the like.

Dr. Hewitt (Northwich) and others took part in the discussion.

Seeing that brandy is the one form of alcohol most frequently prescribed as a medicine, the uncertainty of being able to obtain genuine Cognac in cases of illness is serious. Substitutes are all very well for dietetic purposes, but for medicinal use they are useless, and may be injurious.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

THE second of the series of prosecutions instituted by the Sanitary Department of the Manchester Corporation against Miles Platting chemical manufacturers (*vide* C.T.J. Nos. 637, 636, *et ante*) came before Mr. Headlam at the Manchester City Police Court, on Tuesday, and again on Friday, this week, when Hamor Lockwood and Co., of Vickers-street, Miles Platting, were summoned for causing a public nuisance by allowing noxious fumes to escape from their works. Mr. Rhodes, barrister, again appeared in support of the summons, the defendants being represented by Mr. Langdon, barrister.

Mr. Rhodes, before opening his case, intimated that there was a summons against the same firm in connection with the Philips-street works, but he proposed to take that relating to the Vickers-street works first. A certificate, signed by ten residents in the district, was served upon the Manchester Corporation, and by resolution of the Council, the Sanitary Department were instructed to take proceedings, as they had no option but to do. The defendants engaged in the distillation of coal tar, the manufacture of sulphate of ammonia from gas liquor, and the rectification of sulphuric acid. In the processes of these manufactures nuisances could undoubtedly arise from various sources. The prosecution suggested that there were six different sources from which the nuisance might arise. So far back as 1891 complaints against the defendants' works were investigated, and the city analyst presented a report. It was practically admitted then that certain things were done at the works which would be likely to cause a nuisance. Further proceedings against the firm were stayed because certain suggestions were made, and it was presumed that alterations would be made in the works. In 1896 the present Medical Officer of Health (Dr. Niven) was convinced that a nuisance could arise from the works, but is was not until April, 1898, that Inspector Rhodes discovered that there was a strong smell of sulphuretted hydrogen coming from the works. The inspector visited the works and found that the gases which were supposed to be burned were being conveyed into a chimney and allowed to escape over the neighbourhood. The Medical Officer of Health also visited the works and found the same state of things. For that offence the defendants were fined £20 by the Home Office. The defendants put up a square tower for the purpose of absorbing the sulphuretted hydrogen gas, the liquor being turned into the sewer. Before it was liberated into the sewer it ought to have been passed over a cooling bed of such size and description that the liquor should not only be reduced below the temperature of 110° F., but the precipitation of the calcium salts should have taken place. At the works there was practically nothing of the kind. On May 10 last, the temperature of the liquor as it left the cooling vat for the sewer was found to be much too high, and again on July 15. Up to the beginning of the year the "devil water" was turned into the sewer without being treated at all, but early this year the defendants put down a small tank with oxide of iron in it, and passed the water into it for the purpose of purifying it. The water, however, escaped without being treated at all, thus causing a nuisance. Owing to the character of the plant, very strong gases also escaped into the district, and in counsel's opinion the evidence was of such a nature as to fully establish the fact that the works were the cause of a very great nuisance in the neighbourhood.

Evidence as to the character of the alleged nuisance was then given by several residents in the neighbourhood.

Dr. Niven in the course of his evidence stated that on one occasion when he was approaching the defendants' works, the smell at the top of Vickers-street was so strong that it quite took his breath away. There was no difficulty in seeing the source of the smell, because there was quite a cloud enveloping the rectifying shed in the defendants' works. On other occasions he quite convinced himself that liquor of a high temperature was being turned into the sewer from the defendants' works, thus causing a nuisance. The smells from the works were irritating and unhealthy, and in his opinion they caused a nuisance to the neighbourhood. The way in which the processes of manufacture were carried on at the works was, in his opinion, not satisfactory.

In cross-examination Dr. Niven said that it was frequently difficult to distinguish between defective plant and defective management. He could not point specifically to any defect in the plant, as he was not an expert. He did not say that they could have works of this kind without a smell. So far as witness knew, the complaints which he had made against the works had never been formally communicated to the defendants.—Replying to further questions, witness admitted that upon the evidence he had it was impossible for him to say that the means of purifying the "devil water" were ineffective.

The adjourned hearing was proceeding as we went to press.

RAW RUBBER IN PARA.

AN important contribution to the literature relating to the supply of raw india-rubber is made in an official report of the United States Consul at Para upon a journey which he recently accomplished in the region of the Amazon and its tributaries. Mr. Kennedy says:—"The impression created by the narratives of previous travellers who have been up the Amazon is that the rubber production is on a constant and endless increase. It is not generally believed, but it is nevertheless a fact, that the output is not likely to increase to any marked degree unless a much larger force of rubber gatherers is sent into the forests than has been employed during the past year or two. This is the opinion of the best-informed rubber-plantation owners. Reports that the supply of rubber trees is inexhaustible are largely overdrawn. It is true that there is

NO FEAR OF IMMEDIATE SCARCITY

of rubber, and perhaps there will not be for the next fifty years. It is believed in well-informed circles that hereafter there will be a gradual but steady shrinkage in the rubber product unless the present force of rubber gatherers is largely increased, because, in the first place, the trees conveniently located near the banks of the rivers are naturally the first to be worked, and these are becoming exhausted from constant tapping, the milk extracted being weaker each year, hence the shrinkage in such rubber is very great. In the second place, the rivers have all been worked inland for a distance of about three miles from their banks, and in order to reach the so-called unexplored rubber forests still further inland it will require much more time and necessitate three times as strong a force. Owners of rubber farms inform me that milk drawn from rubber trees five years ago possessed twice the strength contained in that extracted from the same tree to-day. The islands near Para are

ALL OVERWORKED.

Good judges can easily recognise rubber drawn from overworked trees by its peculiar colour. On the banks of the famous Purus river are the most magnificent rubber forests I have ever seen. They form a part of a vast belt which has scarcely been touched. Along the Purus and Jurua rivers and their affluents grow a greater number of the trees than in all the other regions of the country combined. The extent of these forests is so far beyond estimate that it is impossible to obtain even an approximate idea of the area of this rubber belt. The Purus is one of the most important tributaries of the Amazon on its southern side. It rises within the confines of Peru, passes through a small portion of Bolivia, continues in a north-easterly direction through Brazil, and, after draining several plains, joins the Amazon. It is said that its channel is about 2,100 miles in length. The only settlers I saw were located near the mouth of the river. The river Madeira is the chief tributary of the Amazon on the south. Not many years ago the outer world was supplied with rubber taken principally from the trees of this region, though it produces the smallest proportion of high-grade rubber. A boom, however, may be started here soon, as I hear that a scheme is on foot to build a railroad around the falls some distance up stream, thus opening up communication with the upper river. Reports say that the surveys are almost completed, and that

several miles of the road are under way. A Belgian syndicate is said to have charge of this enterprise, the same one which is interested in the Para electric light plant, the proposed waterworks, and the harbour improvements here.

NEW FIELDS.

The Jurua, another southern tributary of the Amazon, also rises in Peru, and crosses a portion of the State of Amazonas. It is said to be about 1,200 miles long, navigable by steamboats for 600 miles. This river is very crooked, and the channel frequently changes. In every direction it is bordered by endless forests. The rubber fields of this district equal those of the Purus. You also see in some places a promising undergrowth of young rubber trees, which is likewise observed on the Madeira."

THE ANALYSIS OF WATER AND SEWAGE.

THE Committee appointed by the British Association to devise a system for the uniform record of the results of the chemical and bacteriological testing of waters and sewages have reported as follows: —"It is desirable that results of analysis should be expressed in parts per 100,000 except in the case of dissolved gases, when these should be stated as cubic centimetres of gas at 0°C. and 760 mm. in one litre of water. This method of recording results is in accordance with that suggested by the Committee appointed in 1887 to confer with the Committee of the American Association for the Advancement of Science, with a view to forming a uniform system of recording the results of water analysis. It is suggested that in the case of all nitrogen compounds the results be expressed as parts of nitrogen over 100,000, including the ammonia expelled on boiling with alkaline permanganate, which should be termed albuminoid nitrogen. The nitrogen will, therefore, be returned as: (1) Ammoniacal nitrogen from free and saline ammonia. (2) Nitrous nitrogen from nitrites. (3) Nitric nitrogen from nitrites. (4) Organic nitrogen either by Kjeldahl or by combustion, but the process used should be stated. (5) Albuminoid nitrogen. The total nitrogen of all kinds will be the sum of the first four determinations. The percentage of nitrogen oxidised—that is, the ratio of 2 and 3 to 1 and 4—gives sometimes a useful measure of the stage of purification of a particular sample. The purification effected by a process will be measured by the amount of oxidised nitrogen as compared with the total amount of nitrogen existing in the crude sewage. In raw sewage and in effluents containing suspended matter, it is also desirable to determine how much of the organic nitrogen is presented in the suspended matter. In sampling, the bottles should be filled nearly completely with the liquid, only a small air bubble being allowed to remain in the neck of the bottle. The time at which a sample is drawn, as well as the time at which its analysis is begun, should be noted. An effluent should be drawn to correspond as nearly as possible with the original sewage, and both it and the sewage should be taken in quantities proportional to the rate of flow when that varies—*e.g.*, in the emptying of the filter-bed. In order to avoid the multiplication of analyses, the attendant at a sewage-works (or any other person who draws the samples) might be provided with sets of 12 or 24 stoppered Winchester half pint bottles, one of which should be filled every hour or every two hours; and on the label of each bottle the rate of flow at the time should be written. When the bottles reach the laboratory, quantities would be taken from each proportional to these rates of flow, and mixed together, by which means a fair average sample for the 24 hours would be obtained. A method of reporting bacterial results, including incubator tests, which is likely to be acceptable to all workers has not yet been determined."

The Committee consists of Professor Ramsay (Chairman), Sir W. Crookes, Professors F. Clowes, Percy F. Frankland, and R. Boyce, and Dr. Rideal (Secretary).

SOCIETE FRANCAISE DES GLYCERINES PURES, LTD.—This company, the formation of which was notified in our last issue, has been incorporated to purchase and acquire the Société Française des Glycerines Pures as a going concern, together with the works, situated at 202, Quai de Clichy, Paris, and at Canet, near Marseilles; and also certain patent rights of Mr. Ernest Scott. The works at Clichy, near Paris, are fully equipped in every respect for the production of refined glycerine from crude glycerine, and are situated on the banks of the Seine, with a right to the free use of water for manufacturing purposes, and also direct water transport from the factory for its goods. The works at Canet, Marseilles, are equipped for the production of crude glycerine from soap lyes, and are conveniently situated in close proximity to the soap industry of France, and a port from whence cheap freights are obtainable to the East and other parts. There is direct cheap water transport to the works at Clichy. The directors are:—Ernest Scott (chairman); Francis Durant; G. G. Blackwell, junr.; R. Guillemard; René Depallier; Auguste Desjouis; and Pierre Guillemard (managing director).

Our Book Shelf.

TEXT BOOK OF ORGANIC CHEMISTRY. By V. von Richter, edited by R. Anschütz, and translated by E. F. Smith. Vol. I., pp. 625, including index. Illustrated. London: Kegan Paul, Trench, Trübner and Co., Ltd. 1899. 15s.

There is no need for any words of introduction in connection with this excellent text book. The volume under notice which confines its attention to the aliphatic series, constitutes part of the third American edition from the eighth edition of the German original.

The typographical arrangement of the book is excellent, both in the matter of display and distinctness, while the graphic formulæ, usually so difficult to reproduce, are amongst the best we have ever seen.

Apart from the introduction, which includes the composition, constitution, formulæ, nomenclature, and properties of the carbon compounds, the work is practically divided into eight parts. The first two deal with the hydro-carbons and their halogen derivatives. Parts three to eight treat of the alcohols in a most thorough manner, and include the mono, di- and tri-hydric alcohols and their oxidation products. The carbo-hydrates are discussed at the end of section eight. The work concludes with some useful notes on animal substances of unknown constitution. Students of organic chemistry will be pleased to know that the second volume is promised before the close of this year. It will of course deal with the aromatic series.

THE PROCESS YEAR BOOK FOR 1899. Edited by W. Gamble, pp. 108, with numerous plates and illustrations. London: Penrose and Co. 1899.

The current issue of this year book, also known as Penrose's Pictorial Annual, is quite up to the standard of its predecessors, and it is encouraging to see that, in regard to artistic printing and process blocks we can hold our own against America, Germany and France, whatever our shortcomings may be in other arts and industries. The frontispiece is an admirably executed photogravure of Lord Kitchener. The book abounds with splendid specimens of colour printing, collotypes, and process blocks printed in special black, blue-black, red, green, and brown-black inks, made by Messrs. A. B. Fleming and Co., Ltd., and is truly a "Review of the Graphic Arts." The text consists of nearly 40 relevant articles, most of which are essentially of a practical nature. We note that the editor unhesitatingly avers that it is at present impossible to print process blocks on any but calendered paper. This decision is the outcome of many attempts to use dull surfaced paper, but the grain has always come through and left a "woolly" imprint. The "get-up" for an entirely British production leaves nothing to be desired. Honours are divided between America and England in the matter of machines used, but the inks and paper are exclusively of British make, while the printers are Messrs. Percy Lund, Humphries and Co., Ltd., of Bradford and London, who are wholesale agents for this work.

TAHL'S TELEGRAPHIC CODE, pp. 170 and supplement. Glasgow: C. L. Wright. 1899. 21s.

This Code is specially suited to the needs of merchants and exporters who deal in chemicals, coal products, pig iron, coals, &c. A special feature is the rendering of the meaning of the code words in English, French, German, and Danish, whereby translation is obviated and mistakes reduced to a minimum, even when cabling to foreign countries. The proof of a code is in the using but from the tests we have put this code to, it seems comprehensive, well-arranged and accurate. It saves the trouble of having a different private code for each separate firm.

PETROLEUM FATALITY.—At Denwick, near Alnwick, Col. Alfred Grey has died from shock and internal congestion as the result of injuries sustained through the accidental explosion of an oil lamp, which he endeavoured to blow out in his smoking room.

AMERICAN NOTES.—Dr. G. T. Bruckmann has acquired the sole proprietorship of the Hazbruck Chemical Works, Brooklyn. The Hoosier Rendering and Fertilizing Company has been incorporated at Indianapolis, Ind., to manufacture fertilizers. Capital 25,000 dollars. Incorporators: A. B. Tollen, A. S. Lockhart, D. P. Erwin, of Indianapolis; F. E. Humphrey, of Boston; Simon O'Donnell, of Chicago.

PRODUCTION OF OLIVE OIL IN ITALY.—An official return gives the quantity of olive oil produced in Italy during the year 1898-99 at 51,750,000 gallons, as against 36,000,000 gallons in the preceding twelve-month and 42,820,000 gallons in 1896-97. The region of the Southern Adriatic produced the most (18,450,000 gallons), while Sicily produced 9,000,000 gallons, the Southern Mediterranean region 7,500,000 gallons, and Tuscany 7,000,000 gallons.

BRITISH CHEMICAL TRADE WITH SWITZERLAND.

A COMPARISON WITH GERMANY.

BRITISH manufacturers and traders, brought up in certain traditions, undoubtedly show great reluctance to leave the broad waterways of commerce for the innumerable small channels of continental trade; they seem to object to frittering away their time and energy in trading with smaller countries requiring more trouble and patience than large dealings with less developed parts of the world. Besides this, a great many British manufacturers and exporters have undoubtedly had such first experiences on the Continent as did not give them any great encouragement to continue their trade there.

Various British Chambers of Commerce have pointed to the unsatisfactory state of trade with Switzerland; newspapers constantly refer to it, and there is no doubt that an effort to try and remedy the present state of affairs, if this be possible, would be welcomed by a numerous and influential body of people in the United Kingdom. Switzerland would indeed appear to be a favourable ground for an experiment in the direction of a closer co-operation between the foreign office and the manufacturing and trading bodies of England. It is first of all a neutral country, and never likely to come into collision with Great Britain. It is eminently industrial, and in spite of its small size a large consumer of foreign goods. It is, moreover, like no other European country, situate in the very heart of the Continent and traversed by important railway lines from north to south and from east to west. Lastly, we are the only country which admits Swiss products duty free.

The following is an abstract of the chemicals imported into Switzerland from Germany and Great Britain;—

Articles.	Value. Germany.	Great Britain.
Colophonium, pitch, &c.	£5,307	£ ..
Coal tar, liquid	333	..
Tartar, raw	937	..
Other auxiliary materials, raw	1,897	..
Caustic potash, caustic soda, &c.	21,137	2,997
Chloride of lime	3,466	3,190
Liquid extracts of tannin	1,160	..
Litharge	2,090	..
Muriatic acid, crude	14,570	..
Sulphuric acid, crude	12,769	..
Soda, calcined	31,366	..
Acetate and sulphate of aluminium	6,358	..
Sulphates of iron, copper, and zinc	6,060	7,171
Epsom and Glauber salts, chloride of barium, &c.	14,185	826
Aniline oil, &c.	91,048	5,312
Benzine, naphtha, paraffin, purified vaseline, &c.	18 037	286
Arsenic acid, sugar of lead, borax, salts of soda, not described	46,351	2,105
Gallic acid, tannic acid, solid extracts of tannin	3,233	..
Glycerine	6,838	761
Pyroligneous acid, acetic acid, raw	6,234	..
Ferrocyanide of potash, chlorate and red chromate	2,909	4,008
Oxalic acid, oxalate of potash	1,869	..
Arseniate, bicarbonate, hyposulphite of soda	853	..
Oleine	248	..
Phthalic acid, resorcine	13 456	..
Potash	810	..
Castor-oil, sulpho-ricinic acid	671	..
Salicylic acid	2,138	..
Sal ammoniac, ammonia	5,756	..
Refined nitre	6,522	..
Nitric acid	2,696	..
Sulphuric ether	3,590	..
Salts of tin	2,282	..
Boracic, pure carbolic, phosphoric acids, &c.	14,218	1,358
Tartar emetic, cyanide of potash, phosphorus, &c.	2,388	528
Bromine, iodine, carbonate of magnesia, &c.	20,006	8,204
Citric acid, tartaric acid	7,032	2,454
Other auxiliary materials, prepared	5,091	..
Potato flour	3,178	1,055
Starch and dextrine, for wholesale	10,316	1,739
" " for retail	10,694	518
Purified rosins	936	1,573
Pyrotechnic preparation	1,125	..
Explosive substances	3,141	..
Matches	3,492	..
Cart-grease and blacking	2,290	507
Raw glue	£10,338	£693
Gelatine and fish glues	2,781	106
Alum, carbide of calcium, and various	3,273	3,805
Stearine	..	441
Mineral colours, ground	9,038	..
Indigo	218	..
Alizarine, artificial	21,976	..
Other extracts, for dyeing	2,200	..
Lamp black, red lead	3,410	..
White lead, white zinc	22,837	942
Chrome yellow, mineral blue	18,432	..
Aniline colours	75,712	2,016
Other colouring materials	9,752	412
Colours, in cakes and bottles	5,072	1,664
Varnishes	13,904	6,888
Sundries	174	619

In the aggregate Germany imports over £702,000. worth of chemicals and pharmaceutical products annually against less than £68,000. worth from Great Britain.

CHEMICAL TRADE OF BOSNIA.

The various industrial establishments in the country seem again to have had a prosperous year, especially the ammonia-soda factory at Lukavica, near Tuzla, and the Brewery of the Actiengesellschaft at Serajevo.

Chemical works. The two most important factories in Bosnia are the Holzverwerthungsfabrik, at Teslic, and the Elektricitätswerke, at Jaice.

The former of these produces methylic alcohol, acetone, pyroligneous acid, acetate of lime, tar and charcoal, also railway sleepers and building timber are chemically impregnated to preserve them from rot. A considerable portion of the machinery is now being reconstructed, as a new patent process hitherto employed did not prove successful, and at the same time the works are being considerably enlarged. They require yearly 120,000 cubic metres of beech-wood, furnished by the Government from the surrounding forests, which are said to be inexhaustible. At the present moment 400 workmen are employed, of whom about half are natives, but when the enlarged works are completed, nearly double that number will be required. Their pay varies between 70 kr. and 3 fl. (1s. 2d. and 5s.) per diem. They are well lodged and cared for. Colonial goods and all simple articles of food and clothing are supplied to them at cost price, and as the drinking water is not wholesome they are provided gratis with an unlimited supply of aerated water prepared on the premises. A school for the workmen's children, of which there are at present over 70, is also maintained by the company and the instruction is free.

Electro-chemical works. The Elektricitäts-Actiengesellschaft at Jaice has obtained from the Government the exclusive right to employ the water-power of the famous Sliva waterfall, from which, it is said, 30,000 horse-power can be obtained without detriment to the beauty of the fall. At present only 10,000 are being utilised for the production of electricity, employed as the motive-power in large chemical works producing chiefly calcium carbide. The process employed is a secret and access to the works very difficult. They are said to be the largest calcium carbide works in Europe.

Miscellaneous. The ironworks at Varés did very well in 1898, and paid a dividend of 6½ per cent. against 5½ per cent. in 1897.

The Government sugar factory at Usora showed a net profit for the first time amounting to about 80,000 fl. (£6,667).

MINERAL PRODUCTION IN 1897.

Mineral.	Output, in Tons.	Value. Currency. Florins.	Sterling. £.
Iron Ore	36,509+	79,086	6,590+
Copper Ore	3,432−	24,060	2,005−
Manganese	5,259−	84,429	7,036−
Chrome Ore	390−	13,870	1,156−
Iron Pyrites	3,612+	18,351	1,529+
Salt	13,699+	974,323	81,194+
Brine, gallons	25,045,240−	45,536	3,795−

The addition and subtraction signs indicate whether there was an increase or decrease compared with the previous year.

ARGENTINE BORAX LTD.—The last issue of the *River Plate Review* in referring to this company says:—"We cannot do more than repeat what we have already written on the subject, warning the British public to keep out of it. We have managed to find out who the parties are on this side connected with the floating of the concern, and the knowledge has strengthened our belief that the concern can never be more than a failure."

Trade Notes.

Salt in Egypt.—The Egyptian Government has signed an agreement for the transfer of the Salt Department, which, together with the Natural Soda Company, has been floated as a company, under the management of Mr. Hooker, late of the Salt Company, who developed both industries. Financially, the arrangement is considered advantageous both to the Government and to Egyptian trade.

New Oldbury Technical Schools.—These buildings are rapidly approaching completion, but it is anticipated that they will not be ready for the public opening for a fortnight or three weeks. In order, however, that the work of the coming session may not be impeded, it has been decided to commence the classes in the rooms which are fit for occupation, and a good number of students have entered for the various subjects.

The Purchase of the Weardale Works.—It is reported in Hartlepools that Sir Christopher Furness and several financial friends have now finally completed the purchase of the extensive iron works at Tudhoe and large collieries in Durham belonging to the Weardale Iron and Coal Company. The nominal capital of the company was £500,000., in fully paid up shares of £10. each. The price paid by Sir Christopher and his friends is stated to be £750,000., or an equivalent of £15. to every holder of a £10. share. It is also stated that it is the intention of the purchasers to immediately commence works of improvement in both the iron and coal departments, and as soon as these have been effected to convert the undertaking into a limited liability company with a capital which it is proposed to fix at £1,250,000. The iron and steel works at Tudhoe are amongst the largest of the kind in the kingdom, whilst the collieries have an aggregate output of about a million and a quarter tons annually.

Market Reports.

TAR AND AMMONIA PRODUCTS.

There is a slight improvement in the position of benzols, 90's now standing at 8½d. to 9d., and 50/90's 10½d. to 11d. Creosote products are in good demand. There is rather more life in anthracene, but prices are unchanged. Carbolic acids are firm, with a tendency towards higher prices. Naphthas steady. Pitch is steady at 35s. East Coast, while on the West Coast a further advance of 6d. has taken place.

Sulphate of ammonia is a falling market. For October/December Beckton offers at £11. 10s. Stocks are practically *nil*. Closing prompt quotations are:—London (outside makes), £11. 11s. 3d.; Hull, £11. 10s.; and Leith, £11. 10s. to £11. 11s. 3d. Nitrate of soda is steady.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade business continues brisk and the advanced prices are well maintained. For bleaching powder considerable business has been done over next year, and price is firm at £5 5s., softwoods, f.o.r. makers' works, both for prompt and forward delivery. In caustic soda there is no further change and current quotations are :—F.o.b. Liverpool, 77%, £9. 15s.; 74%, £9 5s.; 70%, £8. 10s; 60%, £7. 10s. per ton. Ammonia alkali, bags, £4. 2s. 6d. per ton, f o r. Soda crystals 55s. per ton, bags, makers' works Bicarbonate £6. 10s. to £6. 15s. per ton. Leblanc alkali is nominally 1⅛d, f.o.b. Chlorates of potash and soda are quiet at 3½d. and 3¾d. per lb. respectively. In sulphate of copper a considerable business is reported for spring shipment and price is firmer at £26, f.o.b. Ammonia salts all round are steady in price. Sulphur firm at £4 10s per ton, f o r. Saltcake is fairly active at 25s. to 26s. per ton, bulk, at Lancashire and Cheshire works. Prices of potash, caustic and carbonate, continue to advance, and supplies are scarce. Yellow prussiate of potash is firm at 8d. per lb and soda 5⅞d. per lb. For white powdered arsenic the price has improved and market firm at £19., f.o.r. Garston. Brown acetate of lime is a steady market at £5. 5s., ex ship; grey £8 per ton. Acetate of soda firm at £13. 10s, c i f. Sulphocyanides quiet, but rather dearer. Carbolic acids are firmer and in continued good request. Lead salts are firmer. There is a better tone in business generally, and more disposition on the part of consumers to purchase forward requirements.

REPORT ON MANURE MATERIAL.

The market continues to wear an off-season aspect, and in some departments prices are barely maintained.

Considerable business has recently been done in high grade mineral phosphate for the Continent at, it is believed, a shade under the highest point touched, but for lower grades of rock, such as Algerian and South Carolina, sellers remain firm at recent quotations.

There is more East Indian bone meal offering than has recently been the case, and there are now sellers of parcels afloat at £4. 17s. 6d per ton, ex quay Liverpool. For inferior quality on 5% basis of sand, £4. 15s. per ton has been accepted.

Nitrate of soda is rather dearer, and the quotation for good quality is 7s. 7½d. per cwt., whilst that for refined is 7s 9d. per cwt.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron quiet: Scotch warrants closed at 69s 6½d.; Middlesbrough, 67s. 10d. cash; and hematite, 74s. 7d Copper firm: Chili bars, G.O B.'s and G.M.B.'s, closed at £76 2s 6d to £76 7s. 6d. cash; and £76. 10s. to £76. 15s. three months. Tin steady: Straits closed at £149. 15s to £150 5s. cash; and £149. 10s to £150. three months; Australian, £150. 10s.; English ignots £153. to £153 10s. Lead firm: Spanish, £15 10s. to £15. 12s. 6d.; English, £15. 12s. 6d. Silesian spelter, ordinary, £21. 15s. to £21. 17s. 6d. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 12s. 6d.; second hands, £8. 12s. *Copper Shares* steady: Cape, 4 to 4⅛; Copiapo, 3 11/16 to 3 13/16; Libiola, 1¾ to 2; Mason & Barry, 3¾ to 4; Rio Tinto, 45 15/16 to 46 1/16; Tharsis, 7⅞ to 8⅛.

GLASGOW, Wednesday.—Market flat, and a large business done. Scotch done at 69s. 7½d., 69s. 8½d., and 69s. 7d. cash; also at 69s. 10¾d., 70s., 69s. 10d., and 69s. 10½d. month; buyers, 69s. 6½d. cash; sellers, 69s. 7½d. Cleveland done at 68s. 2d. month; buyers, 67s. 10d. cash; sellers, 68s. Cumberland hematite done at 74s. 7¼d., cash; also at 74s. 10¼d, 75s., and 74s. 11¼d. month; buyers, 74s 7d. cash; sellers, ¼d. dearer.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is moving well, with a strong market; sales include Benin at £24., and soft oils at £24. 10s. Olive is very firm, and supplies scarce; prices range from £34. to £39 per tun, the latter being for Gallipoli. Linseed is steady at 23s. to 23s. 6d. cwt. for Liverpool makes in export casks. Cottonseed firm at 18s. 6d. to 18s. 9d. for Liverpool refined, according to quality and quantity. Castor oil is in fairly good demand, and sales of good seconds Calcutta have been made at 2 15/16d., and Madras, 2¾d. per lb.; first pressure French is quoted 2⅞d. Tallow is in a very strong position, prices being on the advance. Resin is steady at 4s. for common; finer grades are scarce and dear, fine being quoted 8s. to 10s. 6d. cwt Spirits of turpentine are firm at 38s. cwt. for spot. Petroleum steady; American is dearer at 7⅛d. to 8½d., and Russian refined, 6⅛d. to 6½d. per gallon.

CAKES.—Quotations of American Western linseed are unchanged, but holders are firm at £7. to £7. 5s, business having been done at the lower figure. River Plate is unchanged at £7. 10s. to £7. 15s. per ton, but Bombay is now quoted at £7. 10s. to £7. 15s, being an advance of 2s. 6d. per ton from last Friday. Liverpool makes are very scarce, and crushers experience a good demand at a partial advance of 2s. 6d., the quotation now being £8. 2s. 6d. to £8. 10s. per ton. Good to choice brands of American decorticated cottonseed are very firmly held for £5. 15s. to £6. 5s. per ton, according to quality, and a good business has been done in Liverpool makes at £6. 5s to £6. 15s. per ton. For Liverpool undecorticated makes a good consumptive demand is experienced at previous full rates to an enhancement of 2s. 6d., the quotation being now given at £5 5s. to £5. 10s. per ton, supplies being in a very small compass, and spot lots of Egyptian are quoted at £5. per ton, business having been done thereat.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Tuesday.

Underneath, the present full advances in the Scottish mineral oil products are given, these having in a measure been agreed upon by the producers. It is not considered, however, that the rise has yet touched its maximum, and further advances are almost certain to take place. So assured are makers of this, that in some of the lines, more particularly in lubricating oils, transactions are confined to spot business, selling forward being avoided for the time being. Sulphate of ammonia has continued its course of slow leakage, and prompt f.o.b. Such is said to have been done at £11. 15s. Sulphate of copper has gone up again, and is now fetching £26. Reasonable activity continues to prevail in the general chemical market, and prices are, for the most part, well held.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s. basis, nett, Tyne: soda ash, £4. 10s. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 7s 6d. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £9. 5s., 70/72° £8. 10s., 60/62° £7. 10s, and cream, 60/62° £7. 10s., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltcake, 25s; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool: bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 4½d. to 7s. 7½d; sulphate of ammonia, £11. 15s. to £11. 17s. 6d. prompt, f.o b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £26., less 5% Liverpool; paraffin scale, hard, 2d. to 2½d. per lb., and soft, 2½d. per lb.; paraffin wax, 120° semi-refined, 3d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1., 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5. 10s., 885°, £6., to £6. 10s. and 890/895°, £6. 15s. to £7. Week's imports of sugar at Greenock were 270 casks best unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are fairly, steady the chief feature being a further advance of 10s. per ton in the price of caustic soda for the continental market. Soda crystals are in good demand, and price locally is £2 17s. 6d. per ton, gross weight. Sulphur is firm at £4. 15s. per ton. Other articles unchanged.

Bleaching powder, softs, £6. per ton, nett; do., hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. 10s. per ton, nett; do ,50%, £4. 12s. 6d. per ton, nett; do., 52%, £4. 15s per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5 per ton, nett; do., 50%, £5. 3s 9d. per ton, nett; do., 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do., 100° Tw., £3. per ton, nett; do., 140° Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt steady at 9s.6d. per ton, f o b. Tees.

COALS —The demand still continues fairly good, particularly for gas coal, for which price is firm at 10s. 6d. and 10s. 9d. per ton. Coke very firm for export at 24s and 25s. per ton, f.o.b. To-day's prices are: Best Northumbrian steam, 11s. to 11s.6d. per ton; second qualities, 10s. to 10s. 6d. per ton; small steam, 7s. to 7s. 3d. per ton; bunker coals, 10s. 3d. to 10s. 9d. per ton; gas coals, 10s. 6d. to 10s. 9d. per ton; coke, 24s. to 25s. per ton.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Demand continues for oil in fair proportions, and it is difficult to explain what becomes of the oil displaced by antagonistic tariffs abroad, especially so does this apply to linseed oil, yet the demand has a good deal to do in the regulation of price. Linseed oil is now considerably higher than a year ago, and the imports of seed are about 33⅓% higher. The principal imports have been to date:—Linseed, 381,127 qrs. against 288,228 qrs. during same time a year ago; rapeseed, 82,563 qrs. against 56,940 qrs.; cottonseed, 101,587 tons against 133,701 tons; oilcake, 14,782 tons against 9,587 tons; olive oil, 3,173 tuns against 5,474 tuns; tar, 9,313 brls. against 3,679 brls. Linseed oil on the spot is of slower sale, being quoted 21s. naked, spot; 20s. 4½d. October-December; 20s. 3d. January-April; refined, and boiled £1. to £1. 10s. per ton extra. The export for the week have reached 33 tons; 2 Germany, 2 Holland, 19 India, 1 Italy, 6 Norway, 3 Sweden. Refined cotton oil is firm and stronger, being quoted 16s. 6d. spot; 16s. 3d. September-October; 15s. 7½d. November-April; crude ditto., 15s. 1½d. spot; casks, £1., and barrels, £1. 10s. per ton extra. The total exports have been 67 tons for the week; 5 Belgium, 22 Germany, 34 Holland, 6 Sweden. Olive oil has experienced a sharp advance, being quoted—Candia, £34 10s.; Malaga, £35. per tun. Olive oil soap has advanced, *pro rata* being quoted from £17. per ton to arrive. Oleines, £18. to £21. per ton. Resins unchanged from 4s. 4d. per cwt. for B/C grades, to 9s. 3d. for W/W. Castor oil unchanged Tallow firm and dearer.

OIL CAKES.—Linseed cakes show a slight advance, whilst cotton cakes are unchanged. Linseed cakes quoted, 95% pure, £8. 5s. to £8. 10s. per ton. Oilcakes (linseed), £7. 2s. 6d. to £7. 7s. 6d.; Russians, £7. 15s. to £8.; Americans none. Cotton cakes steady; best makes, £5. 7s. 6d. to £5. 10s.; seconds, £5.; decorticated, none. Rape cakes: Black Sea, £4. 7s. 6d. to £4. 10s. per ton.

PAINTS.—An average demand without any alteration.

New Companies.

Fletcher, Fletcher & Co., Ltd.—Registered with 20 members, each liable for £1., to carry on the business of wholesale and retail chemists, druggists, drysalters, manufacturers of and dealers in chemists' and druggists' sundries, electrical, chemical and scientific apparatus and materials, etc. F. W. Fletcher is the governing director.

Leigh's Creek Copper Mining Synd., Ltd.—CAPITAL £5 000. in £1. shares. This company has been formed to acquire an option to purchase a group of mines at Leigh's Creek, South Australia, and to search for, prospect, examine and explore mines and ground supposed to contain minerals or precious stones The number of directors is not to be less than 2 nor more than 7. The first are G. P. Dovlette, B. Brookman, A. Sims and J. H. D. Todd. Qualification £100. Remuneration as fixed by the company.

Pinchin, Johnson & Co., Ltd.—CAPITAL £60,000. in 4,000 preference shares of £5. each and 40,000 ordinary shares of £1. each. This company has been formed to acquire the business of oil refiners, colour, paint, and varnish manufacturers, and wholesale drysalters, carried on at Broad-street, Ratcliff, as Pinchin, Johnson & Co., and to carry on the business of white lead and zinc manufacturers and merchants, colour makers, levigators, and grinders, paint manufacturers, oil boilers, and refiners, etc. The subscribers to the memorandum of association are:—A. C. Hill, Pinchin's Wharf, Ratcliff, E., merchant; T. Rosenberg, 3, Strathray Gardens, N.W.; E. Rosenberg. 45, Belsize-square, N.W., manufacturer; C. E. Dowling, Pinchin's Wharf, Ratcliff, E., cashier; D. J. Wood, Pinchin's Wharf, Ratcliff, E., cashier; L. Weeple, Pinchin's Wharf, Ratcliff, E., chemist; A. Harryfranck, 23, Billiter-street, E.C., merchant.

Gazette Notices.

PARTNERSHIP DISSOLVED.

H. NEALL, W. A. BEVINGTON, J. F. HART and A. E. PROCKTER, glue and size manufacturers, Grange-road, S.E., and Belvedere, Kent, under the style of Prockter and Bevington, so far as regards W. A. Bevington.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending September 16th.

Acetic Acid—

Holland,	155 pks.	Little & Johnston
,,	167	A & M. Zimmerman
,,	50	R. W. Greeff & Co.

Acetone—

U. States,	12 dms	H. Wallace & Co.
,,	10	J. Norrenberg & Co.

Alkali—

France,	15 t. 4 c.	J. Harrison
Belgium,	25	H. Wallace & Co
Germany,	2	T. H. Lee
,,	2 10	J. Barber & Co.

Ammonium Muriate—

Holland,	£70	H. Lorenz

Antimony Ore—

U. States,	40 t	Novelli & Co.
China,	25	R. Warner & Co.
Melbourne,	12	J. J. Pratt & Son
Sydney,	6	A. Gibbs & Sons
A. Turkey,	100	H. Grey, Junr.

Arsenic—

Portugal,	183 brls.	Coverley & Westray
Melbourne,	100 cks.	W. & S. Bowditch

Barium—

Germany,	£75	H Johnson & Sons

Barium Chloride—

Germany,	£33	Petri Brs.

Barium Sulphate—

Belgium,	76 pks.	J L. Lyon & Co.
,,	82	O'Hara & Hoar

Barytes—

Germany,	11 pks.	R. W. Greeff & Co.
,,	100	W. Harrison & Co.
Belgium,	69	,,
,,	35	J. L. Lyon & Co.

Basic Slag—

Belgium,	100 t.	Cornwell, Son, & Co.

Bleaching Powder—

France	55cks. 33 pks.	J. M Steel & Co,
Germany,	83 cks.	,,

Caoutchouc—

Straits,	3 t.	Elkan & Co.
Madagascar,	12 c.	Proctor Brs
,,	7	R. Ulrich
Germany,	18	Prop, Bull Wf.
,,	18	T. H. Lee
,,	7 10	Anderson, Weber & Smith

P. E. Africa, 1 19 — ———
Zanzibar, 15 Hale & Son
,, 15 Clarke & Smith
,, 2 14 L. & I. D. Jt. Co.
France, 6 H. Johnson & Sons
Aden, 8 L. & I. D. Jt. Co.
Lamos, 5 ,,
Straits, 1 9 ,,
Brazil, 15 Kleinwort, Sons, & Co.
U. States 8 bgs. L. & I. D. Jt. Co.

Carbon—
Holland, 152 pks. Phillipps & Graves

Carbon Black—
U. States, 200 pks. M. Ashby, Ld.
,, 299 Binney & Smith

Castor Oil—
Belgium, 30 brls. Humphery & Co.
,, 81 A. Morrison
France, 15 Lucas & Spencer's Wf.
Italy, 5 C. Gee & Co.

Caustic Potash—
France, 40 pks. W. E. Cole
,, 5 t. 20 F. W. Berk & Co.
,, 53 dms. Petri Brs.
Germany, 25 J. M. Steel & Co.
31 pks.

Caustic Soda—
France, 5 t. 10 c. W. H. Carey & Sons
Belgium, 8 10 F. Kaye & Sons

Chemicals *(otherwise undescribed)*
Holland, £10 Phillipps & Graves
,, 98 Netherlands S. B. Co.
,, 8 Beresford & Co.
Belgium, 30 J. E. Kitton
,, 106 T. Palmer
Germany, 12 Argo S. S. Co.
,, 12 A. & M. Zimmermann
,, 50 L. & I. D. Jt. Co.
,, 20 J. W. Drysdale & Co.
,, 60 H. Lambert
,, 7 Burgoyne & Co.
,, 12 T. H. Lee

Coal Products—
Carbolic Acid
Germany, 25 pks. J. G. Back
,, 100 J. Owen
Pitch
Germany, 175 cks. R. L. Archibald
N. Russia, 500 W. F. Malcolm & Co.
France, 59 W. E. Cole
Tar
Germany, 240½ brls. Linck, Moeller, & Co.
N. Russia, 1,999 ,,
,, 442 W. H. Hindley & Co.
Russia, 3,154 W. F. Malcolm & Co.

Colours—
Germany, 2 cks. O'Hara & Hoar

Cream of Tartar—
France, 5 pks. F. C. Devon & Co.
,, 3 W. C. Bacon & Co.

Dyestuffs—
Aniline
Belgium, 126 pks. F. Kaye & Co.
Cochineal
Canaries, 23 pks. W. M. Smith & Sons
,, 7 Marshall & French
,, 4 Hendry & Martin
Cutch
Rangoon, 50 pks. L. & I. D. Jt. Co.
,, 200 Elkan & Co.
,, 325 A. Howden & Co.
Extract
France, 100 pks. Bellamy's Wf., Ld.
U. States, 1 Skilbeck Brs.
,, 1 R. Davies & Co.
,, 25 Rosenberg, Loewe & Co.
Denmark, 3 M. D. Co.
,, 2 Major & Field
Belgium. 10 Leach & Co.
Gambier
Straits, 78 pks. Brown & Elmslie
,, 281 Beresford & Co.
,, 181 J. Swire & Sons
Indigo
Belgium, 1 cht. John Cockerill Line
Naphthaline
Germany, 3 pks. Craven & Co
,, 17 Fleming's Oil & Chem. Co.
Saffron
Spain, 1 pk. H. Rubeck
Shumac
Italy, 580 pks. Beresford & Co.
,, 50 W. W. Ware & Co.
,, 100 Girard Brs. & Co.
Tanners' Bark
Adelaide, 226 t. Leach & Co
Valonia
A. Turkey, 245 t. Hicks, Nash, & Co.

Farina—
Germany, 22 pks. R. Ulrich
,, 50 H. Lorenz
,, 50 Dunlop Brs. & Co.
,, 100 J. Barber & Co.
,, 30 T. H. Lee
U. States, 24 Pickford & Co.
,, 177 Wingate & Johnston
France, 60 W. Balchin, Ld.

Glucose—
U. States, 200 pks. 200 c. Deering & Robottom
,, 80 80 J. Barber & Co.
,, 500 500 Perkins & Homer
,, 100 600 Page, Son, & East
,, 25 75 G. Clarke & Son
,, 5,074 10,141 R. G. Hall & Co.
,, 50 294 Thames S. T. & L. Co., Ld.
,, 150 883 A. E. Piggott
,, 200 1,200 E. & T. Pink
Germany, 17 140 J. Knill & Co.
France, 245 245 Trier, Meyer, & Co.
,, 845 845 W. E. Cole
,, 400 400 Deering & Robottom

Glue—
France, £26 Mory & Co.
,, 78 J. Harrison
,, 35 Burnett Brs. & Sons
,, 525 T. M. Duche & Sons
Aden, 12 L. & I. D. Jt. Co.
Germany, 34 M. Dk. Co.
,, 28 Argo S. S. Co.
,, 150 J. Barber & Co.
,, 18 O'Hara & Hoare
Belgium, 304 Leach & Co
,, 300 G. E. Banes
Holland, 35 G. S. N. Co.
U. States, 62 L. & I. D. Jt. Co.
,, 70 W. Dixon

Glycerine—
France, £35 J. L. Lyon & Co.
Adelaide, 390 Mordaunt Brs.

Gutta Percha—
Straits, 4 t. 18 c. Gilman Brs & Co.
,, 13 19 Anderson, Weber, & Smith
,, 40 15 R. & J. Anderson
,, 5 17 H. W. Jewsbury & Co.
,, 9 13 Kleinwort, Sons & Co.
B. Guiana, 2 10 L. & I. D. Jt Co.
Holland, 4 H. Kiver & Co.
France, 2 J. Coppo & Co.
Germany, 2 8 Pickford & Co.
W. Indies, 2 10 Frame, Alston, & Co.

Limespar—
Germany, £50 L. & I. D. Jt. Co.

Litharge—
Holland, 26 pks. Spies Brs. & Co.

Magnesia—
Holland, 5 cs. A. & M. Zimmermann

Manure—
Belgium, 3 t. T. Ronaldson & Co.

Methylic Alcohol—
Germany, 10 dms. W. Isard
France, 20 A. H. Winteizell
,, 1,100 g. Lister & Biggs

Molasses—
U. States, 500 cks. 2,780 c. Fowler, Ld.
,, 600 3,397 Ohlenschlager Brs.
,, 50 281 C. & E. Morton
,, 275 1,640 Deering & Robottom
,, 5 300 Page, Son & East

Ochre—
France, 46 pks. J. L. Lyon & Co.
,, 20 Smiths & Co.
,, 16 Burnett Brs. & Sons
Spain, 90 G. R. Haller
Holland, 49 Phillips & Graves

Oxalic Acid—
Germany, 1 pk. J. Barber & Co.

Paraffin Wax—
U. States, 48 brls. Anglo-Amer. Oil Co.
Sydney, 500 cs. ,,

Pearl Ash—
France, 10 t. F. W. Berk & Co.

Phosphates—
U. States, 2,193 t. Fox, Roy & Co.

Potassium Bicarbonate—
Holland, 13 cks. A. & M. Zimmermann

Potassium Carbonate—
France, 8 t. W. E. Cole
Germany, 14 17 c. Kirkpatrick, Barr, & Co.
,, 15 15 Charles & Fox

Potassium Chlorate—
Belgium, £32 E. Allen

Potassium Prussiate—
France, 24 pks. J. Owen

Potassium Sulphate—
Germany, 282 bgs. Blagden, Waugh, & Co.
,, 282 pks. Deering & Robottom

Red Lead—
Holland, 17 pks. J. Matton
,, 26 Burrell & Co.
,, 22 J. Owen
,, 55 M. Ashby, Ld.
Germany, 11 H. Lambert
,, 64 J. Matton
,, 205 Fuerst Brs.

Rosin—
U. States, 1,050 brls. Moore & Hole
,, 200 L. & I. D. Jt. Co.
,, 1,000 H. Hill & Sons
Belgium, 90 J. Watt & Son

Salicylic Acid—
Germany, 15 pks. T. H. Lee
Belgium, 16 John Cockerill Line

Saltpetre—
Germany, 16 brls. L. & I. D. Jt. Co.
,, 58 cks. J. B. Hewett & Co.
,, 242 pks. P. Hecker & Co.
E. Indies, 1,368 bgs. Lucas & Spencer's Wf.

Soda—
Holland, 90 t. R. Waters

Soda Crystals—
Belgium, 8 c. F. Kaye & Sons

Sodium Hyposulphite—
Germany, 10 t. 14 c. H. Lambert

Sodium Nitrate—
Chile, 2,765 bgs. W. Montgomery & Co

Starch—
Canada, 500 pks. L. & I. D. Jt. Co.
Germany, 5 Fordheu & Co.
,, 2,720 Horne & Co.
,, 112 Argo S. S. Co.
Holland, 1,631 Little & Johnston
,, 120 Hernu, Peron, & Co.
,, 94 G S N. Co.
,, 1,000 D. R. Wallis
Belgium, 60 Fearce, Duff & Co.
,, 120 T. Ronaldson & Co.
,, 77 Leach & Co.
,, 712 E. & T. Pink
,, 1,345 T. H. Lee
France, 1,162 W. E. Cole
,, 40 W. H. Carey & Sons

Stearine—
France, 110 bgs. W. E. Cole
,, 110 H. Hill & Sons
Belgium, 25 ,,
,, 63 D C. Thomas & Sons
Holland, 51 J. Owen

Sulphur—
Italy, 5 t. Hyslop & Symons
,, 5 J. Puddy & Co
,, 5 A. Hunter & Co.
,, 3 W Shelcott & Sons

Sulphuric Acid—
Germany, 25 pks. Spencer, Chapman & Co.

Tallow—
N. Zealand, 375 cks. Phillipps & Graves
,, 60 Deering & Robottom
,, 160 J. W. Cook & Co., Ld.
,, 7 Shaw, Savill, & Albion Co.
,, 3 Flack, Chandler, & Co.
Falkland Is., 5 Goad, Rigg, & Co.
,, 14 Dyster, Nalder, & Co.
,, 518 Deering & Robottom
Australia, 61 Hoare, Wilson, & Co.
,, 70 Goad, Rigg, & Co.
Holland, 10 Phillipps & Graves
Germany, 12 brls. J. Owen
France, 130 bgs. H. Hill & Sons
Sweden, 60 W. E. Bott & Co.
Ceylon, 9 hhds. Beresford & Co.

Tartar—
Italy, 32 pks. Fellows, Morton, & Co.

Tartaric Acid—
Holland, 12 pks. Kirkpatrick, Barr, & Co.
Belgium, 9 F. C. Devon & Co.
Germany, 5 ,,

Ultramarine—
Holland, 12 pks. G. S. N. Co.
,, 20 Thames S. T. & L. Co., Ld.

Varnish—
U. States, 81 pks. Taylor Brs.
,, 70 Atlantic Transport Co.
Holland, 5 Phillipps & Graves

Waste Salt—
Germany, 50 t. F. W. Berk & Co., Ld.
,, 11 Luke & Bailey

White Lead—
Holland, 40 pks Randall Brs.
,, 34 J. R. Francis & Co.
,, 23 W. A. Rose & Co.
,, 55 M. Ashby, Ld.
France, 19 J. Watt & Son
,, 50 J. L. Lyon & Co.
Germany, 29 Perkins & Homer
,, 22 Wilkinson, Heywood & Co.
Belgium, 184 T. & W. Farmiloe, Ld.
,, 44 J. L. Lyon & Co.
Austria, 22 Taylor Brs.

Wood Pulp—
N. Russia, 40 pks. L. & N.-W. R. Co.
,, 90 Thames S. T. & L. Co., Ld.
Holland, 62 ,,
U. States, 511 W. G. Taylor & Co.
,, 2,640 Henderson, Craig, & Co.
Sweden, 35 ,,
,, 1,893 W. G. Taylor & Co.
Norway, 800 ,,
,, 80 C. B. R. Maltby
,, 1,100 Andrews & Co.
Germany, 28 Bailey & Leetham
,, 47 Becker & Wagner

Zinc Oxide—
Holland, 25 pks. Burrell & Co.
,, 23 J. Matton
,, 113 Spies Brs. & Co.
,, 204 M. Ashby, Ld.
U. States, 300 ,,
Germany, 75 Burrell & Co.

Zinc White—
U. States, 50 pks. M. Ashby, Ld.
Germany, 40 ,,
,, 45 Brandram Brs. & Co.
Holland, 20 Burrell & Co.

LIVERPOOL.

Week ending September 14th.

Asbestos—
Montreal, 400 bgs.

Barytes—
Antwerp, 35 brls / 100 bgs. / 33 cks.
Amsterdam, 23
Rotterdam, 21

Carbon—
Philadelphia, 20 brls. Morris Brs., Ld.

Castor Oil—
Calcutta, 20 cs.
Leghorn, 15 H. Watson & Co.
,, 40

Chalk—
Rouen, 3 cs. Co-op. W'sale Society, Ld.

Coal Products—
Pitch
Marseilles, 110 cks.

Colours—
Philadelphia, 22 bgs.
Stettin 100 cks.

Copper Oxide—
Hamburg, 1 ck.

Cottonseed Oil—
N. Orleans, 500 brls.

Cream of Tartar—
St. Nazaire, 1 ck.

Dyestuffs—
Cutch
Singapore, 810 bxs.
Extract
Havre, 11 cks. Cunard S.S Co.
Marseilles, 200
Rouen, 151 Co-op W'sale Society, Ld.
Rotterdam, 35
Colon, 70 cs. D. Midgeley & Co.
St. Nazaire, 60 cks.

Philadelphia, { 22 bxs. 200 cs. 60 brls.

Fustic
Halifax, 321 pps. E. Chaloner & Co.

Gambier
Singapore, { 1,792 bdls. 509 bgs.

Valonia
Smyrna, 132 bgs. Barry Brs.
210 klals. & Co.
" 1,420 kgs. G. Essay
" 516 bgs.

Farina—
Stettin, 10 bgs.

Gelatine—
New York, 5 bxs. Yarwood & Sons
Rotterdam, 6 cs.

Glucose—
Baltimore, 550 brls.
New York, 125

Glue—
Rouen, 25 cks. Co-op. W'sale Society, Ld.
Nantes, 16 pks. R. J. Francis & Co.
Rotterdam, 120 bgs.
New York, 1 brl. Yarwood & Sons

Glycerine—
St. Nazaire, 10 cks.
Marseilles, 35 dms.

Horn Piths—
Hamburg, 20 cs. & qty.

Lamp Black—
Gothenburg, 10 cks. Goodlass, Wall, & Co.
50 cs.

Limestone—
Antwerp, 2 crts. J. T. Fletcher & Co.
" 2 cks.

Manganese Ore—
Yokohama, qty.

Molasses—
N. Orleans, 400 brls.

Ochre—
Marseilles, 50 brls.

Paint—
Boston, 53 cs.
Hamburg, 10 dms.
Vera Cruz, 1 kg.

Paraffin Wax—
New York, 625 brls. Anglo-Am. Oil Co.

Phosphates—
Antwerp, 1,015 bgs.
Norfolk, 1,518 t.

Potash—
Rouen, 54 cks. Co-op. W'sale Society, Ld.

Pyrites—
Huelva, 2,460 t. Matheson & Co.

Rosin—
Bayonne, 3,366 brls.

Salt—
W. C. Africa, 459 bgs.

Saltpetre—
Hamburg, { 12 cks. 265 kgs. 10 bgs.

Soap—
New York, 1 cs. Van Oppen & Co., Ld.
Naples, 199
Hamburg, 1
Boston, 8 Evans, Sons, & Co.
" 20 J. Thompson
Marseilles, 1 M. Bell
" 175 20 dms.
New York, 6,100 bxs.
Teneriffe, 10
Smyrna, 244
Philadelphia, 8 brls.

Soap Stock—
New York, 150 brls.
Norfolk, 883 bdls.

Starch—
Boston, 800 bgs.
New York, 10 brls. J. Braithwoth & Son
Antwerp, 100 cs. J. T. Fletcher & Co.
" 312
Hamburg, 240
Amsterdam, { 80 bxs. 5 brls.

Stearine—
Antwerp, 38 bgs. J. T. Fletcher & Co.
" 32
Dunkirk, 55

Sulphur—
Catania, { 450 bgs. 34 brls.

Sulphuric Acid—
Rotterdam, 5 cylnds.

Sulphurous Acid—
Rotterdam, 6 cylds.

Superphosphates—
Yokohama, 1 cs.

Tallow—
Norfolk, 250 tcs.
Boston, 1,153
Baltimore, 350
Philadelphia, 200
Montreal, 100 cks. Hughes, Cook, & Co.
" 300 brls. T. M. Marc & Co.

Tartaric Acid—
Hamburg, 4 cks.
Rotterdam, 2

Ultramarine—
Rotterdam, 45 cks.

Waste Salt—
Hamburg, 1,200 bgs.

White Lead—
Rotterdam, 81 cks.

Wood Pulp—
Halifax, 2 000 bls. Becker & Co.

Zinc Oxide—
Antwerp, 15 brls.
Hamburg, 5 cks.
Rotterdam, 10 brls.

Zinc White—
Hamburg, 40 cks.
Rotterdam, 8

MANCHESTER.

Week ending September 16th.

Acetate of Lime—
New York, 721 bgs.

Ammonia (Acid)—
Rotterdam, 2 cks.

Antimony—
Rotterdam, 9 cks.

Asbestos—
Rotterdam, 7 crts.

Barytes—
Antwerp, 18 cks.
Hamburg, 100 bgs.

Chalk—
Hamburg, 7 cs.

Chemicals *(otherwise undescribed)*
Hamburg, 72 cks.
Rotterdam, 4 cs.

Coal Products—
Alizarine
Rotterdam, { 16 kgs. 33 cks.
Aniline Colours
Rotterdam, 35 cks. 2 cs. 11 pks.
Aniline Salt
Rotterdam, 19 pks.

Colours—
Ghent, 1 cs. J. T. Fletcher & Co.
Rotterdam, { 7 cks. 8 94 brls. 58 bgs. 5 bxs.

Dried Blood—
Treport, 25 cs.

Dyestuffs—
Extract
New York, 20 brls.
Treport, 16 cks.
Indigo
Rotterdam, 3 chts.

Gelatine—
Hamburg, 5 cs.

Glue—
Antwerp, 20 bls.
Rotterdam, 270 bgs.
Treport, 20 cs.

Glycerine—
Rotterdam, 2 dms.

Lead Acetate—
Rotterdam, 18 cks.

Limestone—
Antwerp, 9 crts.

Lithopone—
Rotterdam, 20 cks.

Mineral White—
Bordeaux, 300 bgs. J. & P. Hutchison

Oxalic Acid—
Antwerp, 30 cks.

Paraffin Wax—
New York, { 200 cs. 560 brls.

Potash—
Rotterdam, { 2 cks. 2 pks. 9 dms.

Red Lead—
Rotterdam, 2 cks.

Rosin—
New York, 230 brls.

Salammoniac—
Antwerp, 5 brls.

Saltpetre—
Hamburg, 54 kgs.

Soap—
Hamburg, 1 cs.

Sodium Prussiate—
Antwerp, 17 brls.

Starch—
Antwerp, 280 cs.
Hamburg, 30 cks.
Montreal, 1,400 bgs.
Rotterdam, 120

Stearine—
Antwerp, 83 bgs.
Rotterdam, 122 7 bls.

Tartaric Acid—
Rotterdam, 30 cks. 2 pks.

Ultramarine—
Hamburg, 6 cks. 1 cs.

Waste Salt—
Hamburg, (a lot)

White Lead—
Antwerp, 5 cks.
Treport, 4

Wood Pulp—
Hamburg, 8 bls. 160 pks.
Quebec, 3,207
Rotterdam, 89 rolls 14

Zinc Oxide—
Hamburg, 5 cs.
New York, 100 brls.
Rotterdam, 60

HULL.

Week ending Sep'ember 16th.

Acetate of Lime—
New York, 205 bgs. Wilson, Sons, & Co., Ld

Acetone—
Hamburg, 1 cs.

Acid—
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.

Aluminium—
New York, 11 bxs. Wilson, Sons, & Co., Ld.

Asbestos—
Rotterdam, 12 bls. Hull & Netherlands S. S. Co.

Barytes—
Amsterdam, 113 cks. Hull & Netherlands S. S. Co
Antwerp, 58 Bailey & Leetham Ld.
" 107 H. F. Pudsey
Bremen, 37 Sissons Brs. & Co.
" 22
Rotterdam, 100 bgs. Hull & Netherlands S. S. Co.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 ck. Hull & Netherlands S. S. Co.
Danzig, 10 Wilson, Sons, & Co., Ld.

Chromium Fluoride—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 172 pks. Hull & Netherlands S. S. Co.
7 brls
Creosote
Bordeaux, 19 cks.
Creosote Salt
Rotterdam, 31 brls. Hull & Netherlands S. S. Co.
Tar
Archangel, 1 094 brls.
Konigsberg, 50 cks.

Colours—
Antwerp, 11 pks. Wilson,
3 brls. Sons, & Co., Ld.
" 3
Bremen, 2 cs. J. Pyefinch & Co.
Hamburg, 100 cks. Wilson, Sons, & Co., Ld.
Rotterdam, { 323 pks. 10 cks. 2 cs. Hull & Netherlands S. S. Co.
Stettin, 14 cks. Wilson Sons, & Co., Ld.

Copperas—
Bremen, 16 cks.

Cottonseed Oil—
New York, 60 brls. Wilson, Sons, & Co., Ld.

Dextrine—
Stettin, 50 bgs. Wilson, Sons, & Co., Ld.

Dyestuffs—
Extract
Dunkirk, 10 cks. Wilson, Sons, & Co., Ld.
Rouen, 18 "
Indigo
Rotterdam, 3 brls. Hull & Netherlands S. S. Co.
Valonia
Smyrna, 400 t.
Verdigris
Antwerp, 3 brls. Wilson, Sons, & Co., Ld.

Dyewood—
Antwerp, 20 bls. Wilson, Sons, & Co., Ld.

Farina—
Rotterdam, 3 cks. Wilson, Sons, & Co., Ld.
Stettin, 500 bgs. "

Glucose—
Rotterdam, 40 bgs. Hull & Netherlands S. S. Co.

Glue—
Hamburg, 100 bgs.
Rouen, 8 cks. Wilson, Sons, & Co., Ld.

Glue Stock—
Hamburg, 41 bls. Wilson, Sons, & Co., Ld.

Lead Acetate—
Hamburg, 9 cks.
" 26 Wilson, Sons, & Co., Ld.

Limestone—
Antwerp, 5 crts. Bailey & Leetham, Ld.

Linseed Oil—
Amsterdam, 9 brls. Hull & Netherlands S. S. Co.

Ochre—
Rouen. 87 cks.

Paraffin Wax—
New York, 750 brls.

Phosphorus—
Hamburg, 51 cs. T. F. Bell & Co.

Plumbago—
Hamburg, 90 cks. F. B. Gotrain & Co.

Potash—
Antwerp, 5 dms. Wilson, Sons, & Co., Ld.
Bremen, 1 ck. Veltmann & Co
Dunkirk, { 30 dms. 10 cks. "

Potassium Carbonate—
Stettin, 10 cks.

Red Lead—
Amsterdam, 8 cks. Hull & Netherlands S. S. Co.

Rosin—
Rotterdam, 8 bls. Hull & Netherlands S. S. Co.

Salt—
Hamburg, qty.

Soap—
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.

Soda—
Antwerp, 250 bgs. Wilson, Sons, & Co., Ld.
Ghent, 170 pks. "

Starch—
Antwerp, 40 cs. Bailey & Leetham, Ld.
" 40 Wilson, Sons, & Co., Ld.
Bremen, 1,942 Veltmann & Co.
Ghent, 236 pks. Wilson, Sons, & Co., Ld.

Stearine—
New York, 7 hds.

Tallow—
Dunkirk, 120 cks., Wilson,
1 cs. Sons, & Co., Ld
New York, 130 brls. "
St Petersburg, 21 cks.

Tartar—
Bordeaux, 20 cks.
Ghent, 1 Wilson, Sons, & Co., Ld

Tartaric Acid—
Rotterdam, 14 cks. Hull & Netherlands S. S. Co.

Turpentine—
Bordeaux, 10 cks Wilson, Sons, & Co., Ld.

Ultramarine—
Antwerp, 2 cs. Bailey & Leetham, Ld.
Rotterdam, 1 Hull & Netherlands S. S. Co.
10 cks.

Varnish—
Antwerp, 3 pks. G. J. Glew

Waste Salt—
Hamburg, 500 bgs. (and a qty.)

White Lead
Antwerp, 35 pks. Bailey & Leetham, Ld

Wolfram Metal—
Hamburg, 10 cs. E. C. A. Tyson

Wood Pulp—
Christiania, 1,538 bls Wilson Sons, & Co., Ld.
Gothenburg, 200 "
Helsingfors, 528 J. Good & Son,
371 "

Zinc Oxide—
Antwerp, 40 brls. Bailey & Leetham, Ld

Zinc White—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending September 21st.

Barium Sulphate—
Antwerp, 450 bgs.

Barytes—
Rotterdam, 7 cks. J. Rankine
189 pks. & Son
Hamburg, 43 cks.

Bleach—
Hamburg, 27 cks.

Chemicals *(otherwise undescribed)*
Hamburg, 4 cks.
4 cs.

Coal Products—
Alizarine
Rotterdam, 13 brls. J. Rankine
1 cs. & Son
55 cks.
Aniline
Rotterdam 14 cks. J. Rankine
2 cs. & Son
Pitch
New York, 13 tcs.

Colours—
Rotterdam, 6 cks. J. Rankine
24 pks. 3 cs. & Son

Cottonseed Oil—
New York, 100 brls.

Cream of Tartar—
Barcelona, 5 cks.
Bordeaux, 13
Tarragona, 14

Dyestuffs—
Extract
Marseilles, 120 cks.
New York, 57 brls.

Glucose—
Baltimore 100 brls.
New York, 300

Glue—
Rotterdam 140 bgs. J. Rankine & Son
New York, 122 brls.

Guano—
Tromso, 1,360 bgs.

Lead Acetate—
Hamburg, 4 cks

Manganese Ore—
Rotterdam, 120 t.

Molasses—
N. Orleans, 9,200 brls.
New York, 1,084

Ochre—
Marseilles, 27 cks.

Painters' Colours—
Antwerp, 1 ck.

Paraffin Wax—
New York, 100 bbls.

Phosphates—
Antwerp, 2,500 bgs. Crawford & Co.

Potash—
Rotterdam, 80 cks. J. Rankine & Son

Red Lead—
Rotterdam, 8 cks. J. Rankine & Son

Rosin—
Baltimore, 400 brls.
New York, 250

Soap—
Marseilles, 10 dm.
New York, 3,300 bxs.
12 cs.

Starch—
Rotterdam, 13 cs. J. Rankine & Son
" 200
Antwerp, 250
New York 3,049 bgs.

Stearine—
Antwerp, 130 brls. Crawford & Co.
Oporto, 30 tcs.
Rotterdam. 18 cks. J. Rankine & Son

Sulphur—
Catania, 68 cks
310 bgs.

Sulphur Ore—
Seville, 1,100 t. Seville Sulphur & Copper Co.

Talc—
New York, 3 cs.

Tannin—
Hamburg, 3 cs

Tartaric Acid—
Rotterdam, 8 cks. J. Rankine & Son

Ultramarine—
Rotterdam, 2 cks. J. Rankine
2 cs. & Son

Varnish—
Antwerp, 1 ck. 5 crts
New York, 32 brls.

Waste Salt—
Hamburg, 122,000 kilos

White Lead—
Rotterdam, 11 cks. J. Rankine
82 pks. & Son

Wood Pulp—
Christiania, 564 bls. 13 cs.
Drammen, 3,791
Gefle, 3,003 Henderson, Craig, & Co.
Gothenburg, 76 81 rolls
Skutskar, 1,474 McPherson & M'Laren Ld.

Zinc Oxide—
Antwerp, 25 cks.
Hamburg, 60
Rotterdam, 25 J. Rankine & Son

Zinc White—
Rotterdam, 100 cks. J. Rankine & Son

TYNE.

Week ending September 16th.

Asbestos—
Hamburg, 30 bgs. Tyne S. S. Co.

Barytes—
Antwerp, 250 bgs. Tyne
31 cks. S. S. Co.
Rotterdam, 127 "
" 400 bgs.

Castor Oil—
Antwerp, 81 cks. Tyne S. S. Co.

Colours—
Hamburg, 2 cks. Tyne S. S. Co.

Glucose—
New York, 93 brls. C. Hassel & Son

Limestone—
Antwerp, 4 crts. Tyne S. S. Co.

Paint—
Christiania, 2 cs.

Phosphates—
Dunkirk, 270 t. Blaydon Chemical M. Co

Plumbago—
Hamburg, 2 cks. Tyne S. S. Co.

Pyrites—
Huelva, 1,994 t. Tharsis Sulphur & Copper Co.

Starch—
Antwerp, 84 cs. Tyne S. S. Co.
Rotterdam, 214 "

Stearine—
Antwerp, 7 bgs. Tyne S. S. Co.

Wood Pulp—
Arendal 760 bls.
Rotterdam, 100

Zinc White—
Antwerp, 25 cks. Tyne S. S. Co.

GOOLE.

Week ending September 1

Alkali—
Hamburg, 10 cks.

Alumina Sulphate—
Ghent, 40 bgs.

Antimony—
Boulogne, 2 cks.

Barytes—
Antwerp, 220 bgs.
27 cks.
Hamburg, 20

Caoutchouc—
Boulogne, 6 cks. 2 cs.
Rotterdam, 12 b

Colours—
Hamburg, 22 cks. 10 cs.

Dyestuffs *(otherwise undescri*
Amsterdam, 2 cks.
Boulogne 30 19 p
Rotterdam, 248 32 cs.

Dyestuffs (Extracts)—
Antwerp, 1 brl.
Hamburg, 91

Farina—
Amsterdam, 84 bgs.
Hamburg, 120

Glue—
Boulogne, 3 cks. 8 b
Rotterdam, 40 bgs.

Potash—
Dunkirk, 5 cks. 30 d

Saltpetre—
Rotterdam, 100 bgs.

Starch—
Antwerp, 31 cs.
Ghent, 60

Waste Salt—
Hamburg, 532 t.
236 bgs.
430 cks.

GRIMSBY.

Week ending September 16

Caoutchouc—
Antwerp, 1 cs.
Hamburg, 11
Rotterdam, 2

Chemicals *(otherwise undescr*
Hamburg, 1 ck. 1 cs.

Colours—
Antwerp, 4 cks. 85 p
Hamburg, 11 3 cs. 71
Rotterdam, 5 10
105 bgs.

Dyestuffs *(otherwise undes.*
Dieppe, 15 cks.

Farina—
Hamburg, 50 bgs.

Ferro Chrome—
Antwerp, 40 cs.

Glue—
Dieppe, 11 cks.
Hamburg, 1
10 bgs.

Wood Pulp—
Helsingborg, 120 bls.
Malmo, 71

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending September 20th.

Alkali—

Toronto,	11 t.	7 c.	£40
Gwelph,	1	18	9
Treport,		3	6
Pt. Elizabeth,	1		7
New York,	1	16	9
Boston,	2	18	20

Ammonia—

Calcutta,		6 cs.	£18
Cologne,	10 cyldrs.		69

Ammonium Carbonate—

Hamburg,	10 cks.		£40
New York,	68		280
Rangoon,		5 cs.	13
Antwerp,	5 t.	6	172
Sydney,		20	34
Cologne,	2	15 c.	75

Ammonium Sulphate—

Barcelona,	204 t.	7 c.	£2,500
Madras,	2	10	45
Bremen,	30		360
Stettin,	25		300
Malaga,	50		625
Hamburg,	60		720
Durban,	30		220

Borax—

Rotterdam,	10 cks.	5 c.	£89
Townsville,	5 t.	5	87
Delagoa Bay,	1		18
Sydney,	1		17

Calcium Oxide—

Boulogne,		13 t.	£15

Carbon Bisulphide—

Hamburg,	7 t.		£80
B. Ayres,		50 dms.	22

Carbonic Acid Gas—

Durban,	1 t.	2 c.	£27

Caustic Soda—

Fremantle,		13 c.	£12
Durban,		4	5
Tampico,	15 t.		150
Vera Cruz,	2	2	18
Cape Town,	1	5	26

Chemicals *(otherwise undescribed)*

Delagoa Bay,		4 c.	£15
Paris,		20 pks.	72
Auckland,	2 t.	2	22
Fremantle,		3 cs. 12	10
Dunedin,		4	16
Madras,		26	60
Dunkirk,		19 d.ns.	75
Bombay,		2	13
Fayal,		6	30
Boston,	200 cks.		217
Rio,	1	5	12
Pt. Elizabeth,		12	64
Bordeaux,	8		28
Sydney,		13	121
Lancaster,		2	11
Cologne,	20		85
Yokohama,		2	85
Melbourne,	2	10 hds. 46 pks.	200
Christchurch,		1 cs.	10
Perth,		4 42	40
Calcutta,		7 25	115
Rotterdam,	20 kgs.		128
Hamburg,	28		169
Chinde,		2	28
Ostend,		1	
Demerara,	20 25		14
	150 crbys.		

Chloride of Lime—
Delagoa Bay, 2 t.

Citric Acid—

Cologne,	3 c.	
Fremantle,	2	
Sydney,	5	
Dunedin,	1	
Madeira,		2 d
Santander,	11	
Brussels,	10	
Bermuda,	1	
Thursday Is.,	1	
Dunedin,	1	
Genoa,	1 t.	
Durban,	7	
Calcutta,	2	
Townsville,	5 cs.	

Coal Products—
Alizarine
Lyttelton, 2 cks.
St. Petersburg, 3 cs.

Aniline
Lyttelton, 1 cs. £13
Sydney, 1 19
Benzine
Dublin 2 cs. £5
Benzol
Antwerp, 25 cks. £93
Carbolic Acid
Dunkirk, 80 cks. £690
Danzig, 2 cs. 16
Calcutta, 3 17
Cresol
Philadelphia, 37 cks. £65
Creosote
Bordeaux, 3, 61 brls. £2,400
Baltimore, 1 cs. 13
Dyers' Colours
Boston, 9 pks £92
Naphthaline
Stettin, 10 cks. £47
Pitch
Cleveland, 200 bgs. £30
Rauma, 500 t. 613
Dunkirk, 109 131
Amsterdam, 767 923
Antwerp, 525 835
Boston, 500 cks. 168
Hamburg, 25 brls. 39
Pyridine Bases
Cologne, 12 cks. £125
Tar
Rauma, 1,100 brls. £673
Pt. Elizabeth, 300 dms. 14
E. London, 125 6
Tar Oil
Boston, 250 cks. £219
Toluol
Hamburg, 50 cks. £144
Copper Sulphate—
Pt. Elizabeth, 5 c. £7
Galatz, 10 11
Cream of Tartar—
Fremantle, 15 c. £61
Launceston, 10 39
Disinfectants—
Montreal, 9 cs. £21
Madras, 18 pks. 21
Sydney, 11 40
Dunedin, 10 cks. 15
Perth, 10 dms. 10
Glycerine—
Hamburg, 9 t. 10 c. £236
Hydrochloric Acid—
Cape Town, 20 cs. £13
Hyposulphite of Lime—
Philadelphia, 5 c. £89
Magnesia—
Barcelona, 4 cs. £28
Manure—
Bordeaux, 12 c. £75
Durban, 13 t. 8 145
Rouen, 112 320
Amsterdam 36 336
Mercuric Chloride—
Calcutta, 3 c. £38
Oil of Mirbane—
Sydney, 1 t. £63
Phosphoric Acid—
New York, 2 cs. £150
Newport News, 23 90
Potash—
Auckland, 5 c. £98
Melbourne, 3 10
Potassium Bicarbonate—
Philadelphia 2 t. 5 c. £58
Potassium Bromine—
Fremantle, 2 cs. £13
Potassium Chlorate—
Barbadoes 20 kgs. £34
Potassium Cyanide—
Madras, 6 c. £15
Fremantle, 4 t. 9 / 10 cs. 510
Durban, 2 215
Cartagena, 2 22
Durban, 6 635
Potassium Prussiate—
Danzig, 33 cks. £710
Antwerp, 4 c 16
Montreal, 1 t. 1 71
Rotterdam, 6 22
Pyrogallic Acid—
Newport News, 2 cs. £59
Salammoniac—
Constantinople, 2 t. 10 c £77
Galatz, 6 9
Mersyne, 13 22
Saltpetre—
Ghent, 17 c. £18
Rio de Janeiro, 2 t. 4 46
Syra, 6 17 134

Sheep Dip—
B. Ayres, 33 t. 1 c. / 1,500 cs. £4,126
Marseilles, 70 100
Hawera, 60 —
Wanganui, 300 —
Wellington, 1,005 125 dms. —
Gallegos, 140 175
Oamaru, 50 63
Napier, 150 263
M. Video, 20 450
Odessa, 10 13
Jamaica, 3 c. 5
Launceston, 15 pks. 35
Soda—
Melbourne, 10 c. £18
Marseilles, 1 t. 10 7
Soda Crystals—
Albany, 5 t. 5 c. £14
Cape Town, 5 10 20
Sodium Bicarbonate—
Malta, 1 t. 3 c. £8
Sodium Prussiate—
Antwerp, 5 t. 9 c. £238
Philadelphia, 5 9 288
Sodium Sulphate—
Gothenburg, 215 t. 10 c. £325
Ghent, 50 75
Sulphur—
Cape Town, 8 t. £76
Sulphuric Acid—
Aden, 1 t. 10 c. £16
Superphosphates—
Auckland, 10 c. £60
Tartaric Acid—
Sydney, 5 c. £23
Dunedin, 3 17
Cape Town, 6 39
Boulogne, 5 30
Washing Powder—
Sydney, 5 t. 10 c. £100

LIVERPOOL.

Week ending September 20th.

Acetic Acid—
Lisbon, 1 t. 13 c. £11
Aluminous Cake—
Calcutta, 68 t. 2 c. £187
Ammonia (Anhydrous)—
Pt. Said, 4 c. 1 q. £31
Ammonium Carbonate—
Naples, 10 c. £13
Toronto, 1 t. 6 3 q. 40
Marseilles, 12 16
Bremen, 1 15 50
Iquique, 11 43
Ammonium Muriate—
Smyrna, 1 t. £22
Barcelona, 2 18 c. 63
St. Petersburg, 2 3 45
Stockholm, 15 16
Montreal 7 19 164
Ammonium Sulphate—
Las Palmas 2 t. £25
Lisbon, 18 t. 15 c. 2 q. 227
Barcelona, 15 3 182
Gd. Canary, 31 1 2 390
New York, 126 16 1,503
Valencia, 80 975
Venice, 10 120
Philadelphia, 83 10 1 1,070
Genoa, 27 2 2 327
Nantes, 159 16 1,679
Arsenic—
B. Ayres, 5 t. £105
Basic Slag—
Auckland, 85 t. £170
New York, 4 12
Pomaron, 50 95
Bleaching Powder—
Allepy, 6 cs.
Alicante, 32 cks.
Amsterdam, 86
Baltimore, 195
Boston, 581
Chicago, 10 bxs.
Corunna, 5
Dunedin, 14
Lisbon, 140
Milwaukee, 90
New York, 87
Oporto, 50
Philadelphia, 256
Rouen, 13
Santos, 3
Seville, 101
Spring Grove, 84
Vera Cruz, 35

Boracic Acid—
Antwerp, 1 t. 19 c. 1 q. £55
Borax—
Rosario, 1 t. 4 c. 2 q. £23
Cienfuegos, 1 11 2 24
Genoa, 1 2 18
Antwerp, 15 236
Havana, 3 13 1 61
Boston, 10 36
Rotterdam, 12 2 3 240
Melbourne, 2 30
Mollendo 6 6
Calcium Carbide—
Calcutta. 10 c. £15
Calcium Chloride—
Boston, 261 t. 16 c. £50
Bari, 30 67
Sydney, 10 15 24
Castor Oil—
Old Calabar, 3 cs.
Caustic Potash—
Baltimore, 3 t. 11 c. £99
New York, 9 10 279
Sydney, 3 1 93
Caustic Soda—
Alexandria, 15 dms.
Arecibo, 10
Barcelona, 115
Bari, 88
Calcutta, 158
Catania, 71
Chicago 10 15 brls. 40 bxs.
Delagoa Bay, 40 cs.
Dunedin, 29
Fairwater, 55
Fiume, 45
Fremantle, 20
Galatz, 6
Geffle, 14 51 brls.
Genoa, 421
Hamburg, 31
Havana, 10
Ibrail, 200
Johannesburg, 80
Leghorn, 18
Lyttelton, 9
Milan, 30
Montreal, 43
New York, 20 cs.
Oporto, 18
Otago, 5
Pernambuco, 30
Philadelphia, 100
Piræus, 55
Rio Grande, 50
Rotterdam, 28
San Sebastian, 50
Seville, 255 9 brls.
Sydney, 20
Trieste, 30
Troy, 2
Vera Cruz, 85
Venice, 15
Wellington, 32
Chemicals *(otherwise undescribed)*
Santos, 4 t. 19 c. £24
Newport News, 10 3 2 q. 21
Varna, 1 5 1 —
Galatz, 2 19 2 —
Bulgaria, 2 3 11
Madras, 31 10 1,619
Perth, 4 400
Fremantle 3 68
Melbourne, 5 10 92
Sydney, 2 2 2 23
Ancona, 1 5 3 21
B. Ayres, 24 18 145
Barcelona, 2 16 1 45
Bremen, 15 2 13
Alexandria, 7 35
Tripoli, 5 25
Panama, 3 cs. 10
Odessa, 3 9 1 104
Natal, 7 7 2 38
Hamburg. 1 16
Calcutta, 55 10 2 135
New York, 7 8 1 209
Philadelphia, 29 10 737
China Clay—
Bombay, 280 cks.
Boston, 184
Calcutta, 30
New York, 300 t.
Pernambuco, 12 10 c.
Vera Cruz, 5
Zarate, 200
Citric Acid—
Launceston, 2 c £17
Sydney, 5 2 q. 48
Coal Products—
Aniline Colours
Barcelona, 10 cs
Boston, 15 kgs. 2 dms.

New York, 19 cks.
Yokohama, 5
Aniline Dye
Barcelona, 17 cks.
Aniline Oil
Boston, 10 dms.
Aniline Salt
Boston, 43 cs.
Rotterdam, 10 kgs.
Carbolic Acid
Rouen, 5 t. 10 c. £44
Philadelphia, 5 10 150
Rotterdam, 10 3 q. 60
Venice, 10 2 35
Genoa, 1 1 74
Hamburg, 9 3 33
Hong Kong, 1 4 13
Dunedin, 2 16 1 77
Napier, 4 11 2 81
Christiania, 9 3 34
New York, 5 3 315
Antwerp, 9 18 159
Creosote Oil
Montreal, 25 cks.
Newport News, 850 brls.
Rosario, 500 dms.
Pitch
Bilbao, 80 brls.
Dunkirk, 60 t. 10 c.
Tar
La Libertad, 2 kgs.
New York, 2 brls.
Philadelphia, 200
Sherbro, 20
Talcahuano, 230
Copperas—
Havana, 4 t. 9 c. £9
Copper Sulphate—
Lisbon, 3 t. 2 c. £70
Palermo, 5 3 118
La Plata, 1 10 41
Stettin, 1 1 3 q. 25
Norkopping, 9 19 244
Santiago, 2 13 2 61
Catania, 5 113
Beyrout, 4 5
St. Petersburg, 40 4 908
Dunedin, 1 5 30
Bremen, 1 14
Sydney, 13 291
Melbourne, 11 246
Amsterdam, 3 18 3 93
Trieste, 32 17 3 758
Bombay, 5 112
Newfairwater, 5 1 118
Rouen, 16 15 380
Disinfectants—
Rangoon, 10 c. £74
Rio de Janeiro, 1 5
Glycerine—
Lisbon, 18 c. 2 q. £30
Iquique, 2 6
N. Orleans, 34 t 13 1,147
Sydney, 1 49
Yokohama, 18 5 3 1,115
New York. 10 917
Newport News, 10 11 1 1,100
Guano—
Malaga, 79 t. 4 c £576
Lead Acetate—
Calcutta, 1 c. £25
Magnesia—
Troyes, 20 cs.
Magnesium Chloride
Lisbon, 4 t 3 c. 16 dms. £21
Marseilles, 1 9 6
Manure—
Marseilles, 14 t 14 c. 2 q £14
Oxalic Acid—
Seville, 13 c. 1 q. £20
Paint—
Amsterdam, 28 kgs 2 cs. / 11 cks.
Belize, 50 4
Beyrout, 85
Callao, 4 8 pks
Cienfuegos, 2
Curacao, 30
Gibraltar, 86 8 12 dm
Half Assinee, 32
Hong Kong, 13
Iquique, 1 cs.
Lagos, 200
Lisbon, 14
Maceio, 2 cks.
Marseilles, 18
Manaos, 4
Melbourne, 5
Nassau, 6
Parta, 4
Ponce, 8
Pt. Said, 2
Pt. Natal, 50 cs
Santander, 2

Shanghai, 40
Sierra Leone, 150 1 110
St. Nazaire, 112
St. John's, N'fd, 2 cks.
Tongku, 80 pks.
Valparaiso, 123 cs. / 55 brls.
York Island, 100
Yokohama, 901

Painters' Colours—
Areca, 1 cs. / 15 brls.
Baltimore, 100
Boston, 140 bgs 50 cs.
Constantinople, 332 kgs.
Coquimbo, 10 brls
Corral, 12 cs.
Gibraltar, 150
Guayaquil, 16 1
Havana, 50 18 brls.
Maranham, 2 cs.
Matanzas, 2 brls.
Newport News, 220
Pernambuco, 10
Santos, 47 dms.
Valparaiso, 40

Paraffin Wax—
New York, 300 cs.
Smyrna, 18 bgs.
Venice, 10

Phosphoric Acid—
Calcutta, 1 cs £20

Phosphorus—
Kobe, 2 t. 2 c. £500

Potash Salts—
Panama, 1 t. £117

Potassium Carbonate—
New York, 8 t. 12 c. £180

Potassium Bicarbonate—
New York, 2 t. 4 c. 3 q. £18

Potassium Chlorate—
Copenhagen, 5 t. 11 c. £167
Hamburg, 7 2 214
Hiogo, 25 788
Konigsberg, 1 30
Libau, 10 299
Naples, 1 30
New York. 7 10 225
Philadelphia, 17 10 537
Sydney, 5 150

Salammoniac—
Alexandria, 1 t. 1 c. 3 q. £35
Canea, 1 brl. 13
Malaga, 1 31
Piræus, 5 c. 8

Salt—
Algoa Bay, 250 bgs. 200 sks.
Antwerp, 235 t.
Baltimore, 695
Bombay, 50 cs.
Boston, 593 1 c.
" 2,300
Brisbane, 500 bgs. 50 cs.
B. Ayres, 245 t.
Calcutta, 7,075
Chicago, 440
Dunedin, 10
Fremantle, 3 5 c.
Ghent, 60
Gd. Canard, 5 2
Gd. Bassa, 1 19
Halifax, 50
Iceland, 1,700 bgs.
Kansas City, 60 t.
Lagos, 50
Malta, 1 12
Manaos, 94 6
Mauritius, 100
M. Video, 9 15
Montreal, 490 13
N. Orleans, 65
Newport News, 65
New York, 165
Old Calabar, 40
Opobo, 139 7
Para, 31 5
Pt. Natal, 310
Rangoon, 2,097
Rotterdam, 150
Savannah, 350
Stockholm, 150
Sherbro, 256 3
Sierra Leone, 110
Sydney, 134
Svendborg, 264 15
Trinidad, 36
Wellington, 65

Salt Cake—
Antwerp, 200 t. £251
Bombay, 6 2 c. 16
Hong Kong, 2 18 8
Melbourne, 48 19 3 q. 129
Philadelphia, 65 9 122
Sydney, 11 15 26

Saltpetre—
Manaos, 2 t. 10 c. £56
Para, 3 19 1 q. 109 / 25 kgs.
Pernambuco, 3 t. 8 2 72
Syra, 1 5 2 26

Sheep Dip—
Algoa Bay, 12 c. £20
B. Ayres, 8 t. 5 243
Cape Town, 14 15
Dunedin, 7 3 196
M. Video, 500 dms. 130
Natal, 20 19

Soap—
Accra, 300 bxs.
Adelaide, 10 cs.
Alexandria, 54 pks
Algoa Bay, 300
Antwerp, 88
Athens, 2
Axim, 300
Bangkok, 72
Barbadoes, 800 3
Bathurst, 250
Beira, 30
Bombay, 45 27 pks.
Brigus, 20
Brussels, 1,826
B. Ayres, 6
Calcutta, 6 250 bdls.
Canaria, 320
Cape Town, 3,650 43
Colombo, 75 3
Colon, 630
Conakry, 155
Delagoa Bay, 300 45
Dominica, 20
Dunkirk, 500
E. London, 602 42
Egwanga, 560
Genoa, 46
Ghent, 108
Gibraltar, 352
Gothenburg, 10 bgs.
Gd. Canary, 934 bxs.
Hong Kong, 859
Johannesburg, 750 60
Karachi, 1
Kingston, Jam., 1,609
Lagos, 274
Madras, 1
Malta, 50
Manaos, 1 170
Mossel Bay, 500
New York, 7 cks. 2 38 dms.
Old Calabar, 112 bxs.
Opobo, 602
Palma, 224
Para, 1
Pt. Elizabeth, 1,275
Pt. Natal, 1,100
Pt. Said, 25
Pretoria, 100
Rangoon, 5
Salonica, 20
San Luis de Potosi, 1
St. Thomas, 152 bxs.
St. John's, N'fd, 1,156 7
Shanghai, 4,600
" 6,929
Sherbro, 1
Sierra Leone, 9
Smyrna, 20 brls.
Sydney, 7,044 cs.
San Juan Del Sur, 200
Syra, 30 pks.
Teneriffe, 68
Tientsin, 100
Valparaiso, 50 dms
Warre, 374
Wolgast, 18
Yokohama, 4

Soda Ash—
Barcelona, 50 bgs. 92 cks.
Bombay, 40 kgs.
Boston, 160 bgs. 36
B. Ayres, 150 brls.
Calcutta, 32
Callao. 15
Copenhagen, 240
Fairwater, 160
Genoa, 400
Hiogo. 250
Hong Kong, 75
Leghorn, 290
Melbourne, 32
Montreal, 200 137
N. Orleans, 38 tcs.
Newport News, 35
New York, 660 47
Pernambuco, 100
Philadelphia, 200
Rio de Janeiro, 100 brls. 60
Rotterdam, 534
San Sebastian, 23
Singapore, 5
Smyrna, 150
Sydney, 294
Varna, 50
Venice, 200

Soda Crystals—
Alexandria, 62 brls.
Boston, 56
Gibraltar, 50
Montreal, 25 bgs. / 25
Nagasaki, 20 kgs.
Palermo, 20
Trinidad, 34

Sodium Acetate—
Melbourne, 17 cks.

Sodium Bicarbonate—
Ancona, 80 kgs. 30 cks.
Antwerp, 140 bgs.
Bilbao, 61 brls.
Calcutta, 950 kgs.
Cadiz, 7
Catania, 20
Colombo, 45
Genoa, 60
Gijon, 10
Karachi, 220 bgs. 6
Leghorn, 25
Lisbon, 100 kgs.
London, 20
Melbourne, 200
Montreal, 75 bgs. / 100 kgs. 100 dms.
M. Video, 20
Newcastle, 100
Odessa, 400 50
Penang, 11 cks.
Rangoon, 20
St. John's, N'fd., 20
Salonica, 15
Singapore, 2
Sydney, 710
Santos, 30
Seville, 24 pks.
Tientsin, 120
Valencia, 80

Sodium Chlorate—
Boston, 275 kgs.

Sodium Naphthionate—
Barcelona, 12 cs.

Sodium Silicate—
Nantes, 3 dms.

Spent Oxide—
Nantes, 133 t. £133

Starch—
Malaga, 32 bgs.
Montreal, 60 brls.
St. John's, N'fd., 26 cs.

Sulphur—
Algoa Bay, 1 c. 2 q. £7
Boston, 100 t. 1 426
Calcutta, 6 28
Cape Town, 5 21
Maceio, 19 3 7
Sydney, 25 1 107

Sulphuric Acid—
B. Ayres, 7 t. 10 c. £98

Superphosphates—
Bordeaux, 9 t. 16 c. 3 q. £21
Cartagena, 7 10 25
Gandia, 100 3 3 250
Lisbon, 100 250
Nantes, 334 12 1 591
Pasages, 200 510
Valencia, 40 92

Tartaric Acid—
Iquique, 1 c. 1 q. £7

Tin Chloride—
La Libertad, 1 c. 3 q. £11

Tin Crystals—
Lisbon, 1 ck. £22

Varnish—
Antwerp, 14 cks.
Bilbao, 1
Gibraltar, 2 brls.
Maceio, 1 cs.
Melbourne, 35 33 dms.
Piræus, 1
Rio de Janeiro, 2
St. John's, N'fd., 6 pks.
Sydney, 10

Waste Salt—
Gd. Canary, 5 t. 2 c. £55

White Lead—
Pt. Said, 40 kgs.

Zinc Chloride—
Bombay, 24 t. 5 c. £363
Lisbon, 6 brls. 41
Oporto, 8 cks. 65
Piræus, 4 t. 8 c. 60

MANCHESTER.

Week ending September 20th.

Ammonium Carbonate—
Basle, 34 kgs. / 2 cks. 4 cs.

Bones—
Beauvais, 82 bgs.

Boracic Acid—
Alexandria, 1 kg.

Caustic Soda—
Jaffa, 100 dms.
Porto Alegre, 50

Chemicals *(otherwise undescribed)*
Alexandria, 2 cks.
Djerba, 5 brls.
Mannheim, 2
Sura, 6 bls.
Tunis, 10

Coal Products—
Aniline Oil
Belgium, 5 dms.
Naphthaline
Germany, 27 cks.

Colours—
Jaffa, 1 cs.

Copperas—
Alexandria, 69 brls.

Copper Sulphate—
Sfax, 2 kgs.

Dyestuffs—
Extract
Belgium, 5 cks.
Germany, 11
Indigo
Tunis, 3 chts.

Farina—
Bombay, 90 bgs.

Gamma Acid—
Germany. 8 cks.

Glue—
Belgium, 10 cks.
Germany, 20
Holland, 24

Linseed Oil—
Beyrout, 10 brls.
Mersyne, 1

Paint—
Beyrout, 15 kgs.
Jaffa, 3 cks.

Red Lead—
Bombay, 14 kgs.
Mersyne, 1

Salammoniac—
Alexandria, 20 cks.
Beyrout, 5

Salt—
Montreal, 250 t.

Soda Ash—
Jaffa, 20 brls.

Sodium Bicarbonate—
Mersyne, 10 kgs.
Tunis, 100

Tallow—
Bombay, 8 cks. 60 brls.

Tin Crystals—
Bombay, 10 cs.

Turpentine—
Alexandria, 10 brls. / 92 dms.
Beyrout, 7
Cairo, 15
Jaffa, 1

White Lead—
Mersyne, 6 brls.

GLASGOW.

Week ending September 21st.

Ammonium Sulphate—
Amsterdam, 125 t. 10 c.
Riga, 30 14

Bleaching Powder—
Dunedin, 5 t. 19 c 3 q

Boracic Acid—
Hiogo, £64

Borax—
Canada, £35
Montreal, 43

Castor Oil—
Fremantle, £54 15s.

Chalk—
B. Ayres, £19
New York, 235

Chemicals *(otherwise unnescr. e.)*
Calcutta, £40
Dunedin, 37

Coal Products—
Benzine
Bordeaux, £69

Creosote Oil
Bordeaux, £1,550
Copenhagen, 152 10s.
Naphtha
Wellington, £65
Pitch
Bombay, £30 10s.
Canada, 400
Christiania, 10
Danzig, 100 t.
Riga, 110
Tar
Bergen, £12
Bombay, 109
Calcutta, 353
Canada, 99
Danzig, 273
Halifax, 24
Riga, 440
Singapore, 100
Tar Oil
Hamburg, £32

Colours—
Calcutta, £45

Dyestuffs *(otherwise undescribed)*
Timaru, £22

Dyestuffs—
Sumach
Bombay, £22

Gelatine—
Canada, £73
U.S.A., 721

Glue—
Canada, £71
Shanghai, 243

Iodine—
Rotterdam, 1 ck. £95

Iron Sulphate—
Bombay, 46 t. 12 c.

Linseed Oil—
Auckland, 12 c.
Bombay, 10
B. Ayres, 1 t. 18
Dunedin, 2 5
Hong Kong, 5 3
Singapore, 4 37 3 q.
St. John's, N'fd., £25 16s.

Litharge—
Johannesburg, £94

Logwood—
Wellington, £64

Magnesium Sulphate—
Fremantle, £24
Montreal, 38
St. Stephen, N.B., 25 16s.

Paint—
Bombay, £139
B. Ayres, 110 10s.
Colombo, 29
Dunedin, 22
Limon, 35
M. Video, 51
Timaru, 21
Wanganui, 21 11

Painters' Colours—
Calcutta, £55 5s.
Dunedin, 280
Hiogo, 16
Hong Kong, 45 11
Madras, 329
Shanghai, 246
Singapore, 55

Picric Acid—
U.S.A., £550

Potassium Bichromate—
B. Ayres, £57
Hiogo, 542
Rotterdam, 34

Red Lead—
Wanganui, £20

Sheep Dip—
B. Ayres, £160
Invercargill, 20
Pt. Lyttelton, 233

Soap—
Colombo, 6 t. 18 c. 2 q.
E. London, 11
Foochow, 5 3
Singapore, 3 16 2
U.S.A., 1 5

Starch—
Rotterdam, £10

Tallow—
Riga, 22 t. 2 c.

Turpentine—
Singapore, £47

White Lead—
Dunedin £38
Wellington, 86

Zinc Oxide—
Canada, £43

HULL.

Week ending September 16th.

Alkali—
Abo, 16 cks.
Fiume, 21
Hamburg, 1
Trieste, 8
Wasa, 11 7 cs.

Ammonium Sulphate—
Hamburg, 158 bgs.

Antimony—
Reval, 10 cks.

Basic Slag—
Wasa, 2,032 bgs.

Borax—
Wasa, 1 ck.

Caustic Soda—
Reval, 50 cks. 48 dms.

Chemicals *(otherwise undescribed)*
Abo, 43 cks.
Amsterdam, 73 8 pks.
Antwerp, 29 cs.
Bremen, 2
Bombay, 430 503 brls.
Christiania, 22 224 slbs. 20 cs.
Gothenburg, 5
Hamburg, 9 156
Helsingfors, 3 10
Karachi, 125
Rotterdam, 10 84
St. Petersburg, 106 60 pks.
Stettin, 39 11

Coal Products—
Pitch
Antwerp, 140 t.
Helsingfors, 20 cks.
Tar
Christiania, 5 bls.
Copenhagen, 5 cks.
Dunkirk, 30
Harlingen, 5
Helsingfors, 35
Karachi, 40
Rotterdam, 10
Stettin, 5
Uleaborg, 20
Wasa, 40

Cottonseed Oil—
Amsterdam, 10 t. 2 c.
Copenhagen, 10
Dunkirk, 3
Ghent, 5
Gothenburg, 5
Hamburg, 20 9
Rotterdam, 13 3
Stettin, 1 12
Stockholm, 1 17

Dyestuffs *(otherwise undescribed)*
Antwerp, 20 cks.

Glue—
Antwerp, 1 cs.
Gothenburg, 20 bgs.
New York, 18 cks.

Linseed Oil—
Amsterdam, 5 t. 3 c.
Bombay, 15 1
Christiania, 2 17
Christiansand, 6 2
Copenhagen, 11
Drontheim, 5 5
Hamburg, 1 15
Karachi, 4 10
Trieste, 1 1
Venice, 14

Manure—
Venice, 370 bgs.

Paint—
Antwerp, 9 cks.
Bombay, 20
Uleaborg, 5

Painters' Colours—
Amsterdam, 19 cks.
Antwerp, 13 1 cs.
Bombay, 1,161 167
Bremen, 3
Christiania, 2 1
Copenhagen, 3 10 dms.
Fiume, 4
Ghent, 25 1
Gothenburg, 8
Hamburg, 47
Helsingfors, 1
Karachi, 4 21
Konigsberg, 33
New York, 34 20
Palermo, 1
Rotterdam, 28 1 1 24 pks.
St. Petersburg, 70 1
Stettin, 24 11
Stockholm, 20
Uleaborg, 170

Salt—
Reval, 50 bgs.

Soap—
Bombay, 20 cs.
St. Petersburg, 2

Tallow—
Abo, 27 cks.
Danzig, 20 t.
Wasa, 164 cks.
Wyburg, 5

Turpentine—
Bombay, 35 dms.

Varnish—
Antwerp, 1 ck. 1 cs.
Bari, 2 11 pks.
Bombay, 60
Copenhagen, 3
Danzig, 1
Ghent, 1
Helsingfors, 2
Karachi, 2
St. Petersburg, 1
Stettin, 2
Stockholm, 5 1 dm.

TYNE.

Week ending September 16th.

Acids—
Montreal, 9 c.

Alkali—
Amsterdam, 12 t. 17 c. 3 q.
Rotterdam, 12 3

Alum Waste—
Copenhagen, 20 t. 5 c. 1 q.
Montreal, 49 17

Ammonium Sulphate—
Genoa, 20 t. 4 c. 2 q.

Antimony—
Antwerp, 18 c.
Hamburg, 11 t. 10

Arsenic—
Amsterdam, 1 t. 12 c.

Barium Binoxide—
Genoa, 24 cks.
Rotterdam, 2 t. 7 c. 3 q.

Barium Carbonate—
Hamburg, 110 t.

Bleaching Powder—
Amsterdam, 3 t. 11 c. 1 q.
Antwerp, 5 15
Bergen, 6 13
Gothenburg, 75 6 2
Ghent, 25 1
Hamburg, 14 19 1
Helsingfors, 124 18
Rotterdam, 35 14 3
Svendborg, 5 1 1

Bone Grease—
Genoa, 8 t. 15 c. 2 q.

Castor Oil—
Montreal, 16 t. 17 c. 1 q.

Caustic Soda—
Amsterdam, 5 t. 16 c.
Antwerp, 30 3 2 q.
Barcelona, 65 17
Copenhagen, 9 11 1
Genoa, 30 3 2
Gothenburg, 4 19 3
Helsingfors, 22 14 2
Montreal, 16 14
Seville, 13 7 3
Stockholm, 13 12 2

Chemicals *(otherwise undescribed)*
Genoa, 6 c.

Coal Products—
Carbolic Acid
Rotterdam, 5 t. 14 c. 1 q.
Tar
Montreal, 5 t.
Uleaborg, 3 9 c.

Colours—
Genoa, 12 c. 2 q.
Montreal, 9 t. 5 3

Copperas—
Helsingfors, 1 t. 19 c.

Fluor Spar—
Hamburg, 20 t.

Glue—
Montreal, 1 t. 5 c. 1 q.

Lamp Black—
Ghent, 1 t. 6 c.

Litharge—
Hamburg, 18 c. 3 q.
Lisbon, 1 t. 7
Montreal, 18 1
Stockholm, 2 16 2

Magnesia—
Antwerp, 1 t. 7 c. 3 q.
Barcelona, 10 11 3
Copenhagen, 13
Hamburg, 1 5

Paint—
Amsterdam, 10 c. 2 q.
Antwerp, 6 t.
Copenhagen, 5
Helsingfors, 1
Stockholm, 4

Red Lead—
Copenhagen, 4 t. 4 c. 3 q.
Genoa, 7 18 2
Hamburg, 3 10 3
Helsingfors, 11
Lisbon, 53 13 2
Rotterdam, 1 2
Stockholm, 24 5

Salt—
Hamburg, 1 t.

Soap—
Hamburg, 1 q.

Soda—
Hamburg, 3 t.
Helsingfors, 14 2 1
Rotterdam, 20 12 3
Stockholm, 16

Soda Ash—
Lisbon, 9 t. 19 c. 1 q.

Sodium Hyposulphate—
Montreal, 10 t.

Sodium Hyposulphite—
Antwerp, 2 t. 1 c. 2 q.

Sodium Sulphate—
Gothenburg, 335 t. 3 c. 3 q.
Hernosand, 600
Riga, 25 3

Sulphur—
Ghent, 1 t. 10 c. 1 q.
Gothenburg, 55
Riga, 125
Sannesund, 334 4

Tallow—
Genoa, 6 t. 3 c.
Hamburg, 1 q.

Varnish—
Hamburg, 3 gls. 1 q.
Montreal, 5 t. 2 c. 3

White Lead—
Montreal, 41 t. 19 c. 2 q.
Stockholm, 8 4 1

GOOLE.

Week ending September 13th.

Chemicals *(otherwise undescribed)*
Antwerp, 41 cks. 1 dm.
Hamburg, 10
Rotterdam, 35

Coal Products *(otherwise undes.)—*
Amsterdam, 75 cks.
Antwerp, 4
Boulogne, 108 2 cs
Ghent, 3
Hamburg, 1
Rotterdam, 2 3

Coal Products—
Pitch
Antwerp, 438 t.

Dyestuffs *(otherwise undescribed)*
Hamburg, 69 bgs. 7 cks 6 cs.
Rotterdam, 44

Painters' Colours—
Antwerp, 2 cks. 3 cs.
Boulogne, 4 7
Calais, 7
Rotterdam, 4

GRIMSBY.

Week ending September 16th.

Caoutchouc—
Esbjerg, 2 pks.
Gothenburg, 1 ble.
Malmo, 2

Coal Products *(otherwise undes.)—*
Dieppe, 179 cks.
Hamburg, 15 bls. 7 cs. 37 pks.

Dyestuffs *(otherwise undescribed)*
Malmo, 2 cs.

Manure—
Esbjerg, 831 bgs.
Hamburg, 267

Painters' Colours—
Antwerp, 2 cks. 1 cs.
Hamburg, 1 pk.
Rotterdam, 7

PRICES CURRENT.

WEDNESDAY, SEPT. 27, 1899.

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 &		8/3
,, Glacial ,,		35/-	
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic .. nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	0	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	15	0
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate .. nett ,,	0	0	3¼
,, Muriate .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- &		33/-
,, Nitrate .. per ton	33	0	0
,, Phosphate .. per lb.	0	0	4
,, Sulphate (grey) London .. per ton	11	11	3
,, ,, (grey) Hull ,,	11	10	0
Aniline Oil (pure) .. per lb.	0	0	4½
Aniline Salt ,,	0	0	4
Antimony .. per ton	39	15	0
,, (tartar emetic) .. per lb.	0	0	8
,, (golden sulphide) .. ,,	0	0	9
Barium Chloride .. per ton	6	12	6
,, Carbonate (native) .. ,,	3	15	0
,, Sulphate (native levigated) .. ,,	40/-	to	60/-
Bleaching Powder, 35 % nett ,,	5	5	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	11	10	0
Chromium Acetate (crystal) .. per lb.	0	0	6¼
Calcium Chloride .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. per gallon	0	0	8¾
,, 50/90 ,,	0	0	10¾
Carbolic Acid (crude 60°) .. ,,	0	2	2
,, (crystallised 40°) .. per lb.	0	0	7½
,, (liquid 95/97%) .. per gallon	0	1	1
Creosote (ordinary) .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. ,,	1	13	6
Solvent Naphtha, 90% at 160° .. per gallon	0	1	2½
Copper .. per ton	76	2	6
,, Sulphate .. ,,	26	0	0
,, Oxide (copper scales) .. ,,	68	0	0
Glycerine (crude) 80% .. ,,	29	10	0
,, (distilled S.G. 1260°) .. ,,	50	0	0
Iodine .. nett, per oz.	0	7	½
Iron Sulphate (copperas) .. per ton	1	5	0
,, Sulphide (antimony slag) .. ,,	2	0	0
Lead (sheet) .. ,,	16	12	6
,, Litharge Flake (ex ship) .. ,,	17	10	0
,, Acetate (white ,,) .. ,,	22	5	0
,, ,, (brown ,,) .. ,,	18	0	0
,, Carbonate (white lead) pure .. ,,	22	10	0
,, Nitrate .. ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) .. per ton	5	5	0
,, ,, (grey) (ex ship) .. ,,	8	0	0
Magnesium (ribbon and wire) .. per oz.	0	2	3
,, Chloride (ex ship) .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	10	0
Linseed .. .. ,,	23	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	10	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % .. .. per ton	23	15	0
,, ,, ,, 75/80 % .. .. ,,	19	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	15	0
,, Nitrate (refined) .. .. ,,	19	15	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz	0	2	3
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks. 10 ton lots)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,,	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,,	2	15	0
,, Acetate (ex-ship) .. .. ,,	13	10	6
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (77 % Caustic Soda) (f.o.b.) nett per ton	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	9	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	8	10	0
,, ,, (60 % Caustic Soda) .. ,, ,,	7	10	0
,, ,, (pure liquor 90° Tw.) .. ,, ,,	4	7	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	6
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	7	6
,, Prussiate .. .. per lb.	0	0	5¾
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100° Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	5	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4¾
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	26	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	153	10	0
Zinc (Spelter) .. .. ,,	21	15	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

THE ADVANCE IN THE PRICE OF COAL.

TRADE generally is reported as reviving, and even the chemical trade itself shows signs of betterment, so we suppose the chance to advance the price of coal ought not to be missed by coal raisers—and it has not been missed.

As we record elsewhere in this issue, the Yorkshire collieries have put on sixpence per ton to manufacturers, and in Wales the same thing has been done. There is, however, another feature about this advance which will to a certain extent reconcile the householder to this extra levy of 6s. and upwards per annum, and that is the advance in wages which the miners receive. It is true it comes out of the householder's own pocket, and if he is also a manufacturer he will contribute a dual share, but the majority of people will not grudge their sacrifice, seeing that the miner is to benefit directly.

This is a nice change for miners, and those who pose as their kind mentors will not fail to shout from the house-tops the wonders they have achieved for the hard-working collier. They are welcome to all the comfort and satisfaction they can extract from their self-adulation, but we would like to urge, in all kindness of spirit, the claims of gratitude upon the miners who are the beneficiaries in this case. Directly or indirectly, the average trade union leader and stump-orator teaches the belief that to show gratitude is to display an unbecoming weakness and to sacrifice independence. In reality it is nothing of the kind, whereas there is nothing more revolting to or generally abhorred by all self-respecting men than the appellation of ingrate. As a rule, nobility of character is measurable by a man's capacity for the expression of gratitude by word and action.

Now the miners are enjoying the benefits of the sliding scale—it falls and rises as the fortunes of the coal trade fluctuate. For those who pay the piper—the public—there is also a sliding scale; but it only slides one way—and that is into the pockets of the general public. Our cute agitator and workman's friend will at once seize upon this statement, and with eyes glistening at the chance for an adverse rejoinder. "The wages of the miner fall with the lowering of prices" he will say, "so that you in turn enjoy the benefits of cheap coal at the miner's expense. *Therefore*," he will argue, "you are only paying back what you have wrung from the suffering miner in the time of distress, etc., etc." But when the garrulity of these exponents of the new social philosophy has expended itself, we shall still ask for the right to prove our words instead of eating them.

We reiterate, the sliding scale only operates against the public and their pockets. When wages and prices are sliding upwards the public pay and, willy-nilly, play at being philanthropists. When wages and prices begin to slide down the miners begin to feel depressed. Depression soon gives place to discontent, and in a few weeks their "leaders," after working their "bellows" hard in enlarging on living wages

and miners' rights, succeed in raising a cloud of dust which obscures the "rights and wrongs" of everybody else. Blinded by the dust (which is usually attributed to the employers), the miners are soon indignant, and a strike results.

Then it is that the sliding scale again hits the public. Coal becomes scarce; slack fetches the price of cobbles, and once more the piper has to be paid. In fact not one, but two pipers this time, each playing a different tune. The one makes you dance to the Stand-and-deliver-your-money-or-no-coal tune, the other depresses you with the doleful ditty of Please-to-pity-the-miner-who-has-no-work-to-do. And, generally speaking, the wail of the women and children is hushed with relief in money or in kind, for they did not attend the dust-raising meetings, and we recognise that they are as much victims to circumstances as we ourselves.

These, however, are things of the past. At present the ghastliness of the recollection is bedimmed and glossed by the more immediate joy of high wages, and a good time coming. Nevertheless, is there not some gratitude due to those who pay the piper for the help of the past? Possibly, but we will let it pass. There is, however, the future.

When the scale begins to slide down let us hope there will be some recollection of the gratitude due to those who are now putting their hands in their pockets to give the miners this advance.

TRUSTS AND LEGISLATION.

MR W. R. PETERS, a leading member of the chemical trade of New York, gives his views on trusts, and legislation to regulate the same, as follows:

In view of the public interest in manufacturing industrial combinations or trusts, and the widespread demand for restrictive State and National legislation, I offer the following remarks in the endeavour to show, from a business man's practical standpoint, how the real interests of the public at large are affected, and whether such legislation is desirable.

In such a brief article very much is left unsaid that might strengthen the position taken herein.

The principal questions to ask about the new system of combinations of factories are:

First—Will cost of production be cheaper than under the old system of individual manufacturers?

Second—Will expense of distribution be less?

Third—What will be the effect on labour and wages?

Fourth—What will be the effect on prices?

An affirmative answer is usually conceded to the first two questions. Taking them, however, in their order:

First—Cost of production. The management of each new combination has the advantage at the outset of comparing manufacturing costs in a number of different factories and adopting for all the most advantageous methods. In addition to this, the concentration of manufacturing, ample capital, ability to buy cheaper, lessened cost per unit of superintendence, and many other causes which enable the larger manufacturer to produce cheaper than the smaller manufacturer, certainly enable these enormous combinations to work at lower cost than the average manufacturer, and generally at as low, or lower, cost than large single factories.

Second—As to distribution. Under the new system, producer and consumer are brought closer together. Services of salesmen are, to a considerable extent, dispensed with, cross freights, often a very important item, are saved, and altogether the economical balance is undoubtedly in favour of the new system.

Third—Effect on wages and labour. Recent advances in wages have been due to commercial activity, and not to the trusts, and the ultimate effect is a matter of opinion.

The new system is likely to employ the same number of workmen at equally high wages, and their employment will probably be more stable, as there is less liability of corporate insolvency or of over-production, followed by idleness. I think labour will fare better, and can make better terms under large corporations and broad, trained men, than under the single factory system, where most manufacturers think they are forced by competition to pay as little as possible The relations *of capital and* labour are being better understood and settled, and are to-day usually settled more satisfactorily for the men by larger employers than small ones.

On the other hand, the new system reduces the number of salesmen, and to a less extent office clerks, but both these bear a trifling relation in numbers to manual labourers, and their loss of employment occurs during a period of prosperity where most of those thrown out can soon find new positions.

Fourth—Effect on prices. The past does not supply statistics. Standard Oil and Sugar operated under different conditions. Commercial activity has brought advancing prices, articles not controlled by trusts, such as tin, copper and iron, rising equally with trust articles, and it is impossible to say what, if any, part in the general advance has been due to trusts.

Trusts are subject to the same natural laws of trade as individual manufacturers, and their greatest danger—excluding bad management—lies in possible competition. Good business management and self-interest require them to maintain prices at such a moderate level as will not invite competition and at a lower level than has ruled hitherto. It is reasonable to conclude that the ruling price of nearly any manufactured article for a term of years has been such as to leave the average manufacturer a profit, and that if the trusts should fix prices at figures leaving a profit for the average manufacturer they would simply be overwhelmed with competition. They absolutely must fix prices lower, and in doing so share with the public the economies due to their operation.

These remarks apply to trusts in general; there are exceptions, such as those enjoying a monopoly through ownership of patents, control of raw material, and also through excessive tariff protection. Business interests are best left as free and unfettered as possible, and, speaking broadly, they are much better regulated by the natural laws of trade, to which they are subject, than by legislation.

To sum up, if my conclusions are correct, and I think they will appear reasonable to the fair minded, the well-managed trust can produce cheaper and market its products more economically, and will, presumably, pay as good wages and sell its manufactured products cheaper than heretofore. Under these conditions they are correct economically and an advantage to the country and its people. Much stress is laid by opponents of trusts upon the suppression of competition, which, however, is not suppressed, but dormant, and exists ready to assert itself under proper conditions. A great deal of competition which is wasteful and useless is set aside.

One very important consideration favouring our trusts is their relation to the export trade and foreign competition, and their probable ability to pay American wages and compete with foreign manufacturers employing cheaper labour.

Instead of adopting restrictive legislation to control trusts it would appear ordinary common sense to await further developments and give them a chance to adjust themselves to their surroundings and demonstrate their usefulness or otherwise.

NITROGEN OXIDES.—At the last meeting of the Manchester Literary and Philosophical Society Professor H. B Dixon and Mr J. D. Peterkin described their recent experiments on the union of nitric oxide and nitrogen peroxide gases. These experiments point to the conclusion that these gases are not inert to one another when mixed together, but partially combine to form gaseous nitrogen trioxide until an equilibrium is established between the rate of combination and the rate of decomposition of the unstable trioxide. The apparatus used in the experiments was exhibited, and a discussion followed which was participated in by several members.

THE CHINESE MINISTER'S INDUSTRIAL TOUR.—His Excellency Sir Chihchen Lofengluh, the Chinese Minister Plenipotentiary, has definitely arranged to tour through the industrial centres of the United Kingdom during January next year. The provinces will be first visited in regular order, and it is anticipated that the tour will occupy three weeks. His Excellency will be accompanied by his secretaries and other members of the Chinese Legation in London. The whole of this tour will be under the auspices of the Article Club, of which influential body the Chinese Minister is a member Mr. Lawrence Cowen, the club's founder and honorary secretary, has the arrangements of the tour under his control, and is now engaged mapping it out. The Minister's visit will be confined to those firms who possess membership in the Article Club, complete variety of manufacture being thus secured. His Excellency intends to narrate his experiences and impressions of this unique industrial tour—in friendly imitation of Lord Charles Beresford's book on China—in a volume which will be published in English and Chinese simultaneously. It is his desire that practical commercial advantage should result from this effort, which should prove a beneficent introduction to Far Eastern trade. As the Chinese Minister speaks and reads our language fluently, and is in addition a considerable student of our literature, and a very friendly critic of our trade and customs, both his tour and his book will be watched with the keenest interest in commercial circles.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Artificial Stone. W. Owen. 18,787. September 18.

Improvements Relating to Matches. R. Voegelin and S. Schimpf. 18,810. September 18.

An Improvement in Candles. C. J. Eder, G. Gotty, and I. Haidinger. 18,815. September 18.

Process and Apparatus for Fixing the Nitrogen of the Air. H. A. Colin and E. Geisenberger. 18,817. September 18.

Improvements in the Production of Cellulose Solutions adapted for the Manufacture of Threads. J. Imray. 18,884. September 19.

Process of Manufacturing Nitric Acid. G. Glock. 18,897. September 19.

Drying Powdered Granular Materials. E. Williamson. 18,920. Sept. 20.

Calcining, Roasting, or Drying Furnace. C. T. Hennig. 18,957. Sept. 20.

Manufacture of Metallic Alloys. J. B. de Alzugaray. 19,021 September 21.

Purifying Gases from Dust. Siemens Bros. & Co., Ltd. 19,037. Sept. 21.

Apparatus for Evaporating and Drying in Vacuo. F. W. Dunlop. 19,033. September 21.

An Electro-chemical Method of Disintegrating Rocks carrying Minerals. C. H. Logan. 19,035. September 21.

Secondary Batteries. P. A. Chalas. 19,105. September 22.

Manufacture of Chlorates. P. Imhoff, J. Raschen, and The United Alkali Company, Ltd. 19,120. September 22.

Treatment of Pot-ales, Spent Lyes, Wash Liquors, Sewage, and other Aqueous Bye-products or Refuse. H. McPhail. 19 129. September 22.

Extraction of Precious Metals from certain of their Ores. The Golden Link Consolidated Gold Mines, Ltd., and H. J. Philips. 19,171. Sept. 23.

Bacterial Treatment of Sewage and Effluents from Sewage Works. J. Brightmore, T. Swann, and F. S. Goodwin. 19,197. September 23.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Preparation and Manufacture of Hydro-sulphurous Acid and Hydrosulphites. J. Grossmann, Harpurhey Chemical Works, Manchester. Eng. Pat. 21,126. October 7, 1898.

Owing to the instability of soluble hydrosulphites it is proposed to prepare insoluble salts that can easily be decomposed, such as salts of the alkaline earths. To prepare, for example, calcium hydrosulphite, 200 lbs. of calcium sulphite paste, containing about 16 lbs. of sulphurous acid, are heated to 30° C., and agitated with zinc dust and sulphuric acid. The addition of the sulphuric acid should occupy about two hours, after which the mass is heated for another three-quarters of an hour at 35° C. and filtered. The filtrate is agitated with milk of lime containing about 17 lbs. of CaO, until the liquid portion tests 2° Tw. or less. The insoluble ingredients are removed by filtration, leaving a solution of normal calcium hydrosulphite. In preparing this salt from sodium hydrosulphite, the carefully neutralised solution of the sodium salt is rendered slightly alkaline with caustic soda, and calcium chloride added until the double decomposition is complete.

Improvements in Tannic Extracts and in Apparatus for the Manufacture thereof. A. Rainard, Près le Marche, Nantes, France. Eng. Pat. 20,680. September 30, 1898.

Tannin extracts are almost always acid, and contain 20 to 23% of serviceable matter. By the following process a neutral product can be obtained, containing 27% of serviceable matter, when concentrated to the customary 20° Bé. The diffusion tanks are of the usual type, yielding an extract of 4° Bé. This is run into wooden clarifying vats, containing a steam coil and an agitator. At 55° to 70° C. the heating is suspended, and 1 litre of nicotine added to every 4,000 litres of extract, the mixture being vigorously stirred. Almost immediately after the first introduction of the nicotine a filtered decoction of raw linseed is poured into the clarifying vat. This decoction is prepared by boiling 4 kilos. of raw linseed with 100 litres of water for 15 minutes. The mixture from the clarifier is then passed through a straw and sand filter into a triple-effect vacuum concentrator. There are three figures.

Improvements in the Manufacture of Matches, capable of being struck anywhere, without Yellow Phosphorus. S. A. Rosenthal, 37, Walbrook, London, and S. J. von Romocki, of the same address. Eng. Pat. 19,039. September 7, 1898.

The match chips are first tipped with the following paste :—Sulphide of antimony, 1 part ; potassium chlorate, 10 parts ; umber, 1·5 parts ; and gum arabic, 1·5 parts, sufficient water being used to give the desired consistency. The head so formed is coated with a second paste, composed of 1 part each antimony sulphide and red (amorphous) phosphorus, 3 parts chlorate of potash, and 4 parts of powdered glass. Glue is used to give this mixture the proper consistency. Finally, the head is dipped in some water-proofing medium. The finished match will strike on any friction surface.

Improvements in Antiseptics and Deodorisers. A. Zimmerman, 9-10, St. Mary at Hill, London. Eng. Pat. 19,326. September 10, 1898.

Owing to its volatility, the impregnation of porous earths with formic aldehyde has not proved a success ; but by this invention a hygroscopic salt, such as chloride of calcium or sodium, is combined with polymerised formic aldehyde or paraform, and the mixture incorporated with fossil meal, etc. In this way a permanent and efficient disinfecting powder is prepared. The following ingredients and proportions are suggested as being suitable :—Paraform, 1 part ; calcium chloride, 12 parts ; infusorial earth, 12 parts ; kieserit (native magnesium sulphate), 63 parts, and sawdust, 12 parts.

Improvements in or connected with the Destruction of Distillery Refuse. D. B. Cumming, 16, Brunswick-street, Liverpool, and J. H. Fullarton, 10, Octavia Cottage, Greenock, N.B. Eng. Pat. 16,767. August 3, 1898.

The refuse liquors are first put through centrifugals to remove any solid material, and are then run into small boilers disposed in the flues leading from the distillery to the chimney stack. In these boilers the refuse is concentrated to a syrupy consistency, and is then "blown down" and sprayed into the chimney stack. This spraying, however, does not form part of the present invention and patent. There is one figure—a plan view of the system.

Improvements in Preparing Calcium Carbide for Use in the Manufacture of Acetylene. E. S. Bond, Crown Works, Booth-street, Handsworth, Staffs. Eng. Pat. 23,346. November 7, 1898.

Carbide cartridges are formed in a paper casing, contained in a cartridge formed of a spiral coil of wire. In use the carbide expands under the action of the water, but the cartridge expands with it and prevents clogging on the sides of the paper container, and also tends to break up the carbide itself. When the carbide is spent, the refuse is removed with the cartridge easily and at once. There are five figures showing the mode of constructing the container.

UTILIZING SUGAR REFINERY WASTE.

THE value of the wash from sugar refineries and distilleries as a fertilizer has long been pointed out, but the wash being very dilute, and becoming very viscid when concentrated, many difficulties have stood in the way of those who have sought to turn the fertilizing ingredients to account.

Last August we gave a short account of a patent referring to the treatment of molasses-wash (*C.T.J.*, 639, p. 115) taken out by a Mr. Wenck. Since then, we learn from the representative in this country (Mr. Wiskemann, 9, Mincing-lane, London) that the product obtained by Wenck's process has been christened "Chilinit," as it supplies nitrogen, and therefore can take the place of sodium nitrate (Chili saltpetre). As indicated in our abstract of the patent, nitrifying bacteria are cultivated in a portion of the molasses, and when teeming with the desired bacteria the liquid is mixed with sterilised powdered chalk and sand, and gently dried at a low temperature. The bulk of the molasses is concentrated in a multiple effect evaporator, and mixed with some of the bacteria preparation. In addition to the potash and nitrogen in the molasses there is a large percentage of dissolved organic substances, which afford an excellent fostering soil for micro-organisms contained in the soil, more especially for nitro-bacteria. In experiments regarding nitrification of ammonia by means of nitrifying bacteria contained in the soil, 60 per cent. of the ammonia added became nitrified after 14 days with molasses-wash of 50° Brix as a fostering soil.

Seeing that the potassium-oxide in the molasses-wash is in most cases fixed to organic acids, an indirect effect has to be expected besides the direct fertilizing action, for the phosphates of iron and of alumina are soluble in the salts of molasses wash. Molasses-wash, therefore, acts not only as a nitrogenous and potassic fertilizer but also as a phosphatic fertilizer, the latter property being doubly valuable, seeing that phosphoric acid no longer dissolves in aërated water when it has been converted into basic phosphate of iron. As the average of a number of analyses, Chilinit may be said to contain 3 to 4 per cent. of nitrogen, 8 to 9 per cent. potash, as oxide, 30 per cent. organic matter, and 30 to 33 per cent. of caustic lime.

CHANGE OF ADDRESS.—We are informed by Messrs. Dunn and Co. that on the 29th ult. they removed to 34, Queen-street, Cannon-street, E.C., where they desire all future communications to be addressed.

THE "IDEAL" FILTER.

THERE are many calls for a rapid and easily-cleaned filter in the chemical and associated industries, and we illustrate in this article two forms of a filter which is suitable for filtering water, vinegar, petroleum, and acids.

Fig. 1.

In these filters porous tubes of artificial insoluble stone are used, water passing through from the outside to the inside and depositing its impurities (whether mechanical or bacterial), on the outer surface, whence they can be easily and effectually removed by occasional washing, which is done without removing the tubes or the frame in which they are suspended, by simply opening a flush cock. The tubes are very strong and durable, and can be renewed if required at the very moderate cost of 4s. 6d. to 5s. each.

Fig. 2.

The "Ideal" filter is distinguished from similar ones by being much lower in price, more effective, more continuously efficient, and more durable. The artificial stone is absolutely unaffected by acids, and alkalies.

The capacity of a single cylinder filter as shown in Fig. 1, is about 20 gallons per hour. Clustered tubes, as in Fig. 2, have a proportionate capacity according to the number of tubes, which may be increased up to 15. The price of a single tube filter is 50s. All particulars can be *had from Mr. R. Simon,* Vernon-road, Nottingham.

NOVEL POCKET CALENDARS.

AMONGST the novelties for 1900 we have been favoured by Messrs H. Grueber and Co., of 2, Ridgmount-street, London, with specimens of their miniature calendars for next year in aluminium, bronze, and nickel. The first is illustrated in natural size, it is 38 mm.

in diameter and weighs less than 6½ grammes; the second is 32 mm. in diameter and weighs 11½ grammes; while the nickel calendar is but 21 mm. in diameter and weighs under five grammes. The illustration shows the aluminium calendar is not too large for the waistcoat pocket, and the material is admirably suited to its purpose.

WEARDALE STEEL, COAL AND COKE COMPANY.

THE negotiations for the purchase of the Weardale Iron and Coal Company have been completed, and the new company, to which the property and business is to be transferred, has been registered at Somerset House. Weardale is a household word in the worlds of coal, steel, and iron, and, as is well known, the Weardale Company, which dates back as far as 1845, has always held a foremost position amongst the mining and manufacturing industries of the country; but its success in the past may, according to report, be eclipsed by the results of future developments contemplated, concerning which, no doubt, further information will be forthcoming hereafter. The registered capital of the Weardale Steel, Coal and Coke Company, Limited, will be £900,000, divided into 500,000 six per cent. preferred shares of £1. each and 400,000 deferred (or ordinary) shares of £1 each, in addition to which there will be an authorised four per cent. debenture issue of £400,000. Of this total £275,000 will be held in reserve, viz., £100,000 of debentures and £175,000. of deferred (or ordinary) shares. There will therefore be offered for public subscription £300,000. of debentures, £500,000. of preferred shares, and £225,000. of deferred (or ordinary) shares, equal to £1,025,000., which is the purchase price of the properties and assets, and herein is included a working capital of over £350,000, represented by cash and liquid assets. With regard to the preferred and deferred (or ordinary) shares, after each class has received 6 per cent. per annum by way of dividend, whatever surplus profits are distributed will be equally divided amongst the preferred and deferred (or ordinary) shareholders. The latter therefore represent the speculative element in the scheme, as the number to be issued is smaller, and the possibilities, if not probabilities, of revenue are greater.

Assuming that the company is as successful as those who will be mostly interested in it anticipate, the unissued deferred (or ordinary) capital, of the nominal sum of £175,000., would probably represent an increased reserve which could be turned to good account at any time the directors felt justified in making a further issue for developments or extensions. Judging by the results of the last financial year, after the payment of the debenture interest and the 6 per cent. dividends on the preferred and deferred (or ordinary) shares, there would be a surplus of over £75,000. for additional dividends, reserves, &c.

The Weardale Company, it is stated, already employs some 7,000 hands, and, so far as the management is concerned, the general manager and heads of departments will remain as before. As regards the directorate of the new venture, associated with Sir Christopher Furness (who will become chairman of the company), as trustees and co-directors, will be found several gentlemen connected with prominent and successful enterprises, amongst which may be named Pease and Partners, William Cory and Son, Armstrong, Whitworth and Co., Easington Coal Company, North-Eastern Railway Company, Seaham Harbour and Docks, North-Eastern Banking Company, Trindon Coal Company, Wolsingham Steel Works, Leeds Steel Company, Irvine Shipbuilding and Engineering Company, &c. The prospectus of the Weardale Steel, Coal and Coke Company made its appearance on Tuesday.

MERSEY AND IRWELL JOINT COMMITTEE.

POLLUTION OF THE SHIP CANAL.

A MEETING of the Mersey and Irwell Joint Committee was held on Monday afternoon at the offices of the Committee, Mosley-street, Manchester. Sir J. T. Hibbert presided.

REPORT OF THE CHIEF INSPECTOR.

The Chief Inspector (Mr. Tatton), in his report to the Committee, stated that fair progress had been made during the summer with the purification works of the Hurst Urban District Council, and with those also of the Stalybridge and Dukinfield Joint Sewerage Board. The report recorded the progress made in various other works, and continued :—"A complaint has been received as to the condition of the (Woolston Cut) canal at Paddington, near Warrington. A similar complaint was received in 1893, and the nuisance created by the stagnant water in this cut was considerably reduced by more constant flushing. I have written to the Manchester Ship Canal Co. calling their attention to the matter, and suggesting that this should be done again, and a letter has been received to the effect that somewhat similar steps shall be taken. A complaint has been received from Bucklow Rural District Council as to the condition of the river Mersey above the Northenden weir. The pool above the weir has, no doubt, during the past summer been in an offensive condition, as it forms to some extent a settling tank for the sewage of Stockport, Ashton, and other towns above. The Stockport sewage works are now in operation during the day time, and the polluting matter is reduced to that extent. Progress is being made with the outfall works for the other authorities, as from time to time reported to you, but serious pollution will continue until these works are in operation."

THE SHIP CANAL.

The report of the Consulting Sub-committee contained the following letter, addressed on the 16th ult. to the clerk of the Committee by the secretary to the Ship Canal Co. :—"At a meeting of the directors of this Company, held yesterday, the chief engineer reported that notwithstanding the costly dredging operations which have been carried on unremittingly of late (frequently by night as well as by day), recent soundings had shown that large deposits of sewage sludge exist in the docks of this Company at Salford. The protracted drought has had the natural result of diminishing the quantity of water passing down the various streams and courses in the watershed to an almost unprecedented degree, with the further result that absolutely no detritus is now being conveyed by these streams into the docks, nor has been so conveyed for many weeks past. It is obvious, therefore, that the large accumulations found in the docks can only have been derived from two sources—(1) crude sewage from the various towns and districts in the watershed ; (2) refuse from the various factories and works in the same area. The directors are sure that it is unnecessary to impress upon you the absolute illegality of the deposit of such sewage or refuse in the streams and rivers, but they wish to draw your special attention to the fact that the continued large deposit in the Manchester docks renders it difficult and most expensive to maintain the depth necessary for the accommodation of the large steamers now frequenting the port. They venture to ask, therefore, whether it is not possible for your Committee to take some more effective steps to prevent the illegal deposit of the material in the streams through which it is conveyed into the rivers and then into the docks of this Company." The report proceeded :—"In this matter your Sub-committee have carefully examined a report by Mr. Scudder on samples of Ship Canal dredgings taken by himself and Inspector Jephson in November, 1896, and also the result of his examination of mud taken from the bottom of the Salford docks about the same time. Mr. Scudder has shown the dried samples referred to your Committee, and his analyses of the same are printed as an appendix thereto, showing, in your Sub-committee's opinion, that the charge made by the Ship Canal Co. against the result of the Joint Committee's work is not sustained, and that undoubtedly in the river Irwell and its tributaries a very great and continued improvement is being effected. Your Sub-committee recommend that a copy of this report be forwarded to the Manchester Ship Canal Co., and that in doing so the clerk be instructed to draw their special attention to the same, and to state that, in the opinion of the Joint Committee, with the above facts before them, the Company's statements are not borne out."

Dr. Hewitt said the condition of things was certainly not one he would like to subject himself to. Before the Ship Canal was there the river cleaned itself, but now, owing to the vast amount of sewage and sludge, the lives of the people about Lymm, Warrington, and Latchford were rendered extremely disagreeable. Something ought to be done after all these years to put an end to the enormous amount of pollution of the canal. The condition of the water at times was one vast seething mass of fermentation, and the bubbles rising to the surface had the appearance of those from a soda-water bottle.

Mr. Alderman Hopkinson said that he had swallowed samples of water taken from the canal above Mode Wheel, and found them not all objectionable.

The Chairman said they must congratulate Mr, Alderman Hopkinson on being present that day. (Laughter.)

The matter was referred to the Consulting Sub-committee for further consideration.

The Sub-committee referred to the condition of affairs in several districts, and in some cases directed the clerk to take legal proceedings against the offending parties forthwith. Sir Henry Roscoe had laid before the Sub-Committee the analysis of sixty samples of sewage effluents from the works of local authorities. Of these he reported that sixteen were good, thirteen fair, six unsatisfactory, and twenty-five bad effluents.

Mr. Joshua Hampson, a representative of the Manchester City Council, was appointed a member of the Consulting Sub-Committee, and Mr. Grimshaw, also of the Manchester City Council, was appointed a member of the Chemical Sub-committee, in the place of Dr. Sidebotham.

FALSE MARKING OF STEEL.

AT the Barrow Police Court, on Monday, the Barrow Hematite Steel Co. were summoned under the first section of the Merchandise Marks Act, 1897, charged with falsely applying a certain mark to certain tramway lines, and also with having in their possession certain goods to which a false trade description had been applied contrary to the statute. Mr. T. G. Ellison, barrister, of Sheffield, prosecuted, and Mr. F. H. Mellor defended.

Mr. Ellison said the charge was, that in order to avoid certain testing provisions in connection with a contract for steel rails, under the Sheffield Corporation, some one had substituted for a piece of rail to be tested by the official inspector, another piece in which was the forged mark. In 1897 the Sheffield Corporation entered into a contract with the defendants for a supply of tramway rails to cost £33,000. Under the specifications certain tests were instituted, and the Corporation appointed certain inspectors to watch their interests. An official had a special stamp, and on the 8th February, after a certain length of rail had withstood the drop test, two pieces were cut by the inspector for the purpose of putting them under the tensile test. Two days later the inspector attended to witness the testing and found they were not the same pieces he had cut off, and discovered that a false mark had been made by a forged stamp. The inspector pointed this out, secured pieces of the original rail, and though they were sufficiently good for the contract they were inferior to the one with the forged mark. Mr. While, general manager to the Barrow Steel Co , had an interview with the Lord Mayor of Sheffield, and admitted that a forged die had been used, Mr. While adding that it was a common practice in steel works.

Mr. Mellor : I cannot admit that statement by Mr. While

Mr. Ellison said he could prove it. The Corporation were carrying out their duty on behalf of the general commercial morality. The Lord Mayor wrote to the Duke of Devonshire, the chairman of the Company, stating that Mr. While's explanations were very unsatisfactory, and that the facts were of such gravity that the attention of the directors ought to be drawn to them The Duke replied that the Board of Directors were annoyed that a forged die had been used.

John Henry Finney, the inspector alluded to, gave evidence, and bore out Mr. Ellison's opening statement. He showed the falsely-marked pieces to Mr. While, and that gentleman confessed that he could not see any difference between the false marks and the marks put on by witness.

Cross-examined : You were inspector up to the end of the contract ?—No, I was not I was withdrawn.

Who withdrew you ?– Messrs. Nash and Son.

Why did they withdraw you ?—I was sent to another district.

But the contract was not completed then. Why were you taken away before the completion of the contract ?—Because the rails were being inspected in Sheffield

Charles F White, city surveyor of Sheffield, said the first 4,000 rails were accepted, and the contract for the supplementary 3,000 was almost completed.

Mr. Mellor, for the defence, said in this case the Sheffield people got the quality of rails they had bargained for, and what had occurred was simply a technical offence under the Act. Nobody had been deceived in the slightest degree, and the Company pleaded guilty because they had been unable to find out who marked the rails. He pointed out that under the first contract they passed the test and everything was right. The quality of rails under the second contract was also up to the quality demanded with the exception of one. Therefore they had an odd state of things existing, and under common law there was no right of action against the Company. This should not have been a criminal prosecution. There had only been a technical breach of the law, for no one had been a penny the worse off for what had taken place. If it had been so very important the Sheffield Corporation would have taken action at once. The Steel Co understood the matter had been settled. They had done their best to find out who the culprit was. It might

have been some man on the works, but the Company were unable to find him. Perhaps some gentleman in the Sheffield Corporation or some of the constituents of a certain gentleman there had called attention to it, seeing the November elections were near at hand, and so were struck by the great commercial importance of Sheffield, and wanted to know why the contract went to Barrow.

The Company were fined 40s. and costs in each case and court fees.

THE PROPERTIES OF BELGIAN PEAT.

At the instance of the Belgian Government Departments of Forestry and Agriculture an investigation of the numerous peat mosses in that kingdom has been made by Mons. A. Petermann, with a view to ascertaining the best means of utilising this extensive natural product. In the case of the mosses in the State forests of Hertogenwald and Freyr (Ardennes), the peat is comparatively rich in nitrogen, the average content, referred to perfectly dry matter, being 1·8 per cent. The material contains too small a proportion of fibre to be suitable for use as litter, but, owing to its ligneous character and the presence of woody residues, it seems well adapted for distillation in closed retorts; and in fact 1,000 kilos. (air dry) treated in this manner at a temperature of about 450 degs Cent., yielded the following products:—

Coke	337·5 kilos.
Tar	57·665 ,,
Acetic acid	3·056 ,,
Methyl alcohol	600 cc.

The tar when subjected to fractional distillation furnished

Oil distilling below 100 degs. Cent.	2·5 kilos.
Oil ,, between 100 and 200 degrees	12·75 ,,
Oil ,, ,, 200 and 300 degrees	17 00 ,,
Paraffin	14·425 ,,
Carbon	11 00 ,,

The quantity of ammonia produced, viz., 921 grammes (=3,630 grammes of sulphate of ammonia) is much less than the nitrogen content of the peat presaged. In addition, cyanides formed from the distillation of the organic bases, were detected in the carbon, and a considerable volume of illuminating gas was evolved, 2 kilos. of peat in one experiment having produced enough gas to supply one jet for six hours. The peat found in the plains of Campine is of a different nature, being earthy and containing from 28 to 60 per cent. of ash, as compared with the average 5 per cent. or so yielded by the Ardennes peat. It is, however, suitable for use as fuel locally, and for mixing with litter, the power of absorption for water being high, as is also the proportion of manurial ingredients.

UNITED STATES POTASH CO., LTD.

This company has been organised, with headquarters at Detroit, Mich., E. L. Kelsey being president and William M. Courtis treasurer and manager. The prospectus says:—"The company is organised for the purpose of locating, testing, and developing lands in the United States or Canada on which potash may be found, in the hopes of discovering a valuable bed of the mineral. The reasonableness of the existence of the company is found in the large returns that would be obtained in the event of success, and more particularly in the fact that not only does the same geological formation as that in which the potash is found in Germany exist in this country, but also similar potash salts have already been found in small quantities in several places. There has, however, never been any development of the same. The American fields to-day are entirely unexplored.

"The capital stock of the company consists of £20,000. in 10,000 shares of £2. each, non-assessable. Of this amount, three-fifths are in the treasury of the company, while the remaining two-fifths are held by the promoters of the company in return for information, lands, and services. It is estimated that about £4,000. will be required to do the exploration work planned, and the same is being raised by the sale of 2.000 shares of the treasury stock, part of which is already taken. The remaining 4.000 shares are available for additional work (subscribers to present stock to have first option on any other stock offered for sale by the treasury), or in event of the present amount proving sufficient, the remaining stock will be divided *pro rata* among the stockholders. Active operations will be begun as soon as £2,000. is subscribed. In event of success, the capital stock will be increased as may seem to be necessary." As is well known, the world is now largely dependent for its supply of those salts upon the mines of Stassfurt, in Germany, and the value of the deposits there is enormous. The existence of such deposits in the United States is by no means impossible, and their discovery and development would be of value, not only to the owners, but also to the chemical industry of the country generally, and to other important interests.—*Engineering and Mining Journal*

PEAT AND PETROLEUM BRIQUETTES.

When used alone as fuel, compressed peat briquettes, although they absorb but little moisture, and both store and burn well, are attended by the disadvantage that they crumble to pieces very readily under the influence of great heat, the fragments being carried away as smoke by the draught in the furnace. For this reason peat briquettes are unsuitable for locomotive firing. On the other hand, the ordinary turves, whether cut by hand or machine, are very bulky, hydroscopic, and do not give any great amount of heat in burning. Again, petroleum by itself forms a good fuel, but requires specially-constructed fireboxes and spraying apparatus for its consumption, entailing also the necessity of a plentiful supply of steam for producing the spray, and giving out such intense heat that the walls of the boiler are very liable to become damaged. In addition, none but the high-boiling residues from the stills are suitable for this purpose, the employment of the lighter oils being somewhat risky on account of the inflammable vapours they evolve. Now, by properly draining peat mosses before cutting, the density of the turf blocks can be increased by about 50 per cent. without resorting to artificial pressure; and the author has found that the hydroscopicity of the mass can be reduced to a minimum, and its heating power greatly increased, by impregnation with fatty materials, cheapest among which is petroleum. As Velnas and Hennelbutte found in the manufacture of briquettes from coal and petroleum, the latter combustible can be suitably converted into a semi-solid gelatinous condition by employing it as a solvent for magnesia soap, which substance not only solidifies the oil, but also increases the durability of the briquettes; and the author proposes to adopt this process for the manufacture of peat briquettes. To this end the peat, cut to the proper size, is steeped for five minutes in the prepared petroleum, the better qualities of peat absorbing 10 to 15 per cent. of their own weight, whilst the inferior kinds will take up as much as 30 per cent.; no pressing is required. It would appear that the resulting briquettes are safer to store than the unprepared peat, since they cannot be ignited by a glowing splinter, nor are they liable to spontaneous combustion; and, as far as can be ascertained, no loss of petroleum by volatilisation occurs during storage. It is also considered that the new briquettes will be applicable as fuel for generators, since ordinary moist peat can be used for that purpose and it is a common practice to blow in steam when coal fuel is employed. Probably the best results will be obtained by impregnating moist peat with the petroleum mixture. In any case there is no reason to fear that any distillation of the petroleum would take place in the generators.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

On Friday, last week, Mr. Headlam, the city stipendiary resumed the hearing of the summonses against Messrs. Hamor Lockwood, Ltd., chemical manufacturers, Vickers-street, Miles Platting, for creating a nuisance by emitting noxious fumes from their works. Mr. Rhodes again appeared in support of the prosecution, and the defendants were represented by Mr. Langdon. The contention of the prosecution is that undoubted nuisances arose from the distillation of coal tar, the manufacture of sulphate of ammonia from tar liquor, and the rectification of sulphuric acids, in which amongst other processes the defendants were engaged. It was suggested that the nuisances alleged against the defendants arose from six specific causes, and at the last hearing evidence as to the existence of the nuisances complained of was given by residents in the neighbourhood.

Mr. Herbert Porter, Government alkali inspector, was called by Mr. Rhodes. He spoke to having visited the defendants' works on various occasions and to finding traces of sulphuretted hydrogen passing up the chimney and sulphuric acid entering the sewer.

In cross-examination Mr. Porter said the gases which escaped from the defendants' chimney were reduced to a minimum under the Alkali Act, so much so as not to be a nuisance.

Inspector Sharratt, of the Manchester Corporation Sanitary Department, gave the result of observations he had taken of the defendants' chimney in August, 1898. He spoke to seeing a white vapour emitted from the chimney. As the vapour fell to the ground level it caused a sensation of irritation in the throats of those who happened to be in the vicinity.

Inspector Grinsley said that in November and December last he traced a sharp irritating odour to the defendants' chimney.

Evidence as to a similar condition of affairs on various occasions was afterwards given by other inspectors and members of the police force, after which the further hearing of the case was adjourned to Thursday of this week, when the hearing of the case was resumed.

On Thursday the hearing was brought to an end, the Stipendiary reserving his decision.

Reports of Companies.

ANGLO-SICILIAN SULPHUR CO., LTD.

The report of the council for the third financial year ended July 31st last, states that the gross profits on the year's trading (taking exchange at 27·20, the same rate as last year) have amounted to £127 368., to which must be added interest on temporary investments and other receipts bringing the total gross profits to £134,430. After deducting working expenses and other items, including an amount of £3,945 added to the reserve for eventual depreciation of stocks of sulphur, which then amounts to £24,520., there remains a net profit of £93,232 There is a further credit of about £10,000. standing among sundry creditors and outstandings, which has not yet been brought into profit and loss account, but when accurately ascertained it will be added to the reserve for eventual depreciation of stocks of sulphur. Out of the net profit of £93.232. an interim dividend of 3 per cent., less income tax (on the amount paid up per share) on the preference shares for the six months to January 31st was paid in March last, absorbing £17.167., and it is now proposed to pay a further dividend for the second half of the year of 3 per cent. (on the amount per share paid up) on these shares, amounting to £17,167., less income tax, making a total distribution on the preference shares of 6 per cent. for the year, as provided by the articles of association. Of the balance, 20 per cent., or £11,779., has been credited to the capital guarantee fund (held in reserve according to articles of association), which then amounts to £26,109. ; a sum of £27,673. has been credited to the general reserve fund, which then stands at £58,121., and the remainder, £19,444 , is divisible as follows:—One-tenth (£1,944.), free of income-tax, to the preference shareholders, which, with £205. standing to their credit from last year, will admit of a further distribution on this class of shares, in addition to the 6 per cent. as above, of ¾d. per share on the fully-paid shares and ½d. per share on the shares on which 15s. have been paid, carrying forward £560., and the council recommend that these amounts be dealt with accordingly ; nine-tenths to the ordinary shares, or £17,500., with which the council recommend payment of a dividend of 6d. per share, free of income-tax, being 50 per cent. on each ordinary 1s. share.

DIVIDEND.

A. and F. Pears (Limited).—The report states that the net profit for the year ended June 30 (after carrying £3,738. to depreciation fund) was £54,607., making, with £1,544. brought forward, a total of £56,151. The directors recommend a dividend for the half-year ended June 30 at the rate of 12 per cent. per annum on the ordinary shares, making 10 per cent. for the year ; £5,000. is placed to reserve and £3,151. carried forward.

Our Book Shelf.

The Chemical Trade Directory. 374 pp. Manchester: Davis Bros. 1899. 21s.

This directory consists essentially of six sections, though Section IV. is sub-divided into six parts. The first three sections contain alphabetical lists of the chemical manufacturers, merchants, and makers of chemical plant in Great Britain and Ireland, and gives all the necessary particulars for communicating with these firms by letter, rail, or wire, as well as stating the products made or dealt in. As an addenda to these sections a list will be found of the salt proprietors in the United Kingdom. The six parts of Section IV. contain (1) an alphabetical list of analysts, etc., and chemical engineers, (2) analysts to associations, (3), county and district agricultural analysts, (4) city and borough analysts, (5) classified list of specialists, (6) alphabetical list of towns, with the analysts practising therein. The last two sections contain an alphabetical classification of chemicals and plant, the name and town of the makers being given, while the full addresses can be ascertained by reference to Sections I., II., and III. respectively. Following the contents page, which precedes Section I., are alphabetical lists of the headings under which the chemicals and plant in the last two sections of the directory have been classified.

Manchester Technical School.—*Engineering Trades.*—The following evening courses of instruction have been arranged:—Mathematics—theoretical mechanics; geometry engineering—drawing and design ; applied mechanics—steam and the steam engine ; metallurgy—steel making, iron founding ; special course on planing and milling machines ; bench work—wood turning for pattern makers ; practical mechanical engineering ; special course on chemistry for engineers ; graphics—statics of structures ; engineering surveying. Abridged syllabus free by post ; complete syllabus 4d., by post 6d.

THE FIRST HURTER MEMORIAL LECTURE.

IMPENDING CHANGES IN INDUSTRY.

On Wednesday evening this week, the first lecture of the series arranged for by the Liverpool section in memory of the late Dr. Ferdinand Hurter, was given by Dr. Lunge in the Chemical Theatre of University College, Liverpool. The interest of the occasion, and the fame of the lecturer, attracted a very large audience, and the selection of Dr. Lunge by the committee was felt to have been fully justified.

After introductory remarks relating to his personal and other relations with Dr. Hurter—both came to this country in the sixties from abroad, because at that time England offered the widest and best field for technical chemists—Prof. Lunge turned to the consideration of the main branch of his subject, namely, the changes now being brought about in industries generally, and in the chemical industry in particular, through the use of water-power. The significance of this change is the greater because the two countries which have hitherto led in chemical manufactures are decidedly lacking in natural water-power, and therefore a shifting of the centres of industry is almost certain to occur. The part played by electricity in bringing about this utilisation of water-power was discussed, and the importance of the use of high-tension currents for transmission purposes was pointed out. At present in Switzerland, the cost of the h.p. year in the lowlands might be taken at from £11. to £12. when generated from coal, while water-power *at the point of generation* cost only £1. per h.p. year. At the present stage of electrical knowledge and development, power generated from water could be transmitted up to *60 miles* in Switzerland, before the cost of the conductor and the losses on transmission brought the cost of the h.p. year at the point of consumption, up to that of steam power. Whether in time the limit of 60 miles would be exceeded it was impossible to say.

The influence of freight charges upon the development of these new centres of industry was next discussed by the lecturer, and the importance of reducing these charges to a minimum pointed out. The present position of the chemical industries with regard to this new source of power was then illustrated by two tables, based upon figures given by Prof. Borchers in a paper read before the 1899 annual meeting of the German Electro-Chemical Society.

Table I. gave the estimated production of chemicals by electrolytic methods in 1899; Table II. the available power (both water and steam) for the manufactories now in operation, or in course of erection. The totals were startling in their magnitude, and as Prof. Lunge pointed out, were in some cases untrustworthy. The total water-power at present available was estimated by Borchers at 378,000 h.p ; the total electrolytic production of chlorate at 10,600 tons; of caustic soda at 82,560 tons ; and of bleach at 225,000 tons.

In closing the main portion of his lecture, Prof. Lunge impressed upon his hearers the fact that the impending change was inevitable. There were three great periods to be marked in the history of manufacture, which might be named those of wood, coal, and water. In the earliest days wood was the only fuel, and the only source of power or heat. At the commencement of the present century man learned how to utilise the petrified energy of coal, and of late finds he has been wastefully using up the stores of this fuel with most alarming rapidity. But the use of coal as a source of power is only the necessary intervening step to the use of water, and the third and possibly final stage in this aspect of man's industrial progress has now been entered upon. When the coal epoch has been completed, it will be seen to have formed but a very *short epoch* in the industrial development of mankind.

But though the older manufacturing countries which have attained their present position of importance and prosperity through their possession of extensive and easily-worked coal-beds are doomed to gradually lose their supremacy, they are unlikely to yield their position without a struggle, and as successful manufacture depends not only upon cheap power, but upon mental energy and brains, their retirement from the industrial race will not occur at once. Economies in the use of coal as a source of heat or power are certain to be adopted, and the subject of Mr. Beilby's recent presidential address before the Society of Chemical Industry was thus of paramount interest to British manufacturers. The lecturer then referred to the production and use of water-gas, and to the promise held out by the Mond and other forms of Gas Producer. The latest of these—the Dellwik—had recently been examined by the lecturer, and he was in a position to confirm the statement, that in this form of Producer, 82 per cent. of the calorific value of the fuel could be obtained in the gas.

Turning to the question of changes in the special industry with which the majority of his listeners were connected, namely, the alkali industry, Professor Lunge discussed the manufacture of sulphuric acid by catalytic action, and the production of alkali and bleach by electrolysis. The greater portion of the low strength acid required for the production of salt cake and other sulphates would, in his opinion, still be made for many years to come by the old lead-chamber process, but for high strength acid the catalytic process offered undoubted advan-

tages, and, in course of time, might be generally adopted for all strengths of acid.

As regards alkali and bleach, the world's supply of the former would be provided by the ammonia-soda and by the electrolytic processes, while bleach and chlorine products generally would all be obtained from the electrolytic works which were springing up in all parts of Europe. Even France alone, according to Borchers's estimate, was preparing to manufacture 99,000 tons bleach by these processes at an early date, and the 225,000 tons bleach shown in Table I., as the prospective production of all the electrolytic works, was more than equal to the world's present consumption.

The lecture closed with a reference to the guiding principle of Dr. Hurter's scientific work—namely, the pursuit of truth for its own sake—and with a quotation from Schiller, applicable to Hurter's life:—

"Who has done enough for the best men of his age . . he has lived for all time."

Trade Notes

East India Indigo.—From the cables just to hand from Calcutta Messrs. Millward & Co. learn that the final official estimates for the new crop are as follows:—Behar, 45,000 maunds; Lower Bengal, 15,000; Benares and North-West, 25,000; total, 85,000 maunds; against an average yield of 130,000 maunds. The anticipations that the present crop would be one of the smallest on record seem now to be fully confirmed, and with the present greatly reduced stocks in London there is every likelihood of a higher range of values for some time to come. There is considerable activity on the London market, and the small declarations for the public sales on Monday next are being further reduced daily by business concluded privately upon the basis of the advance already quoted.

The Advance in Coal.—Circulars were issued on Saturday last by the West Riding and South Yorkshire colliery owners announcing that house coal has been advanced 1s. a ton and engine and manufacturing coal 6d. The wages of miners have been advanced 2½ per cent., making the rate paid 40 per cent. in excess of the standard rate of 1888. The coal trade is now very brisk.

Fatality at a Soapworks.—Mr. Brighouse held an inquiry at Warrington recently, respecting the death of William Thomas Percival, Hall-street, who died at the infirmary from injuries received whilst following his employment at Messrs. Crosfield & Sons' soapworks. Deceased was fixing a guide rope to a crane which necessitated him walking on a wall thirty feet high, when he slipped and fell to the ground. A verdict of accidental death was returned.

Explosion at a Chemical Works.—At half-past nine on Thursday an extraordinary accident happened at the chemical works of Messrs. Brunner, Mond and Co., Winnington, near Northwich. Joseph Isherwood, shiftman, of Warrington-road, was deputed to clean out an empty sewer in the works. He entered with a lamp, and immediately there was an explosion of gas. He was burned on the face and arms, the injuries covering a large area. He was removed to the Victoria Infirmary.

The Late Sir E. Frankland's Estate.—The personal estate of the late Sir Edward Frankland, K.C.B., &c., who died on the 9th of August, has been valued at £126,471. net, and the whole of the estate at £138,627. gross. By his will, which is dated May 29, 1899, he bequeaths his freehold property, the Yews, Reigate, and the whole of his chemical instruments and books relating to chemistry to his son Percy Faraday Frankland, who is one of his executors; the other being Dr. S. West. Among the bequests are £200. each to his executors, £500. to his "faithful assistant, William Thomas Burgess," and £2,000 to his secretary, Jane Lund.

Ammonia and By-products Plant.—The Langloan Ironworks, Coatbridge, formerly owned by Messrs. Robert Addie and Sons, after having been closed for a number of years, are about to be re-started. The works have been purchased by Messrs. R & J. Dempster, Newton Heath, Manchester, who have also in operation large ammonia plants at Carnbro' and Shotts ironworks. It is the intention of Messrs. Dempster to put down an extensive plant on the most approved principle for ammonia and the other by-products, and also generally to remodel the blast furnaces. When completed four furnaces will be in operation. The new firm anticipates being able to place pig-iron in the market in less than 12 months. Employment will be found for close on 250 men, and will prove a great boon to the west end of the town.

The Animal Charcoal Co., Ltd.—This company, formerly trading at New Gravel Lane, London, E., inform us that they have closed their business and disposed of their stock to Messrs. Francis Lloyd & Co., The London Charcoal Works, Riley-street, Bermondsey, London, S.E.

Nitrate Statistics.—The Permanent Nitrate Committee, in their public statistical circular for October, state the statistical position of nitrate of soda as follows:—(1) Total exports to Europe, September, 2,825,000 quintals; loading for Europe, 1st October, 3,138,000 quintals; (2) imports, Europe, September, 71,880 tons; (3) deliveries, Europe, September, 57,930 tons; (4) visible supply, Europe, 1st Oct., stocks and afloat, 436,640 tons.

Royal Commission on Sewage Disposal.—This week Dr. McGowan and Mr. Kershaw, members of the Royal Commission on Sewage Disposal, paid a visit to the Eccles Corporation Sewage Farm with a view of ascertaining the method of its working. The area of the farm is 72 acres, 63 of which have been utilised for filtration and irrigation purposes. The total cost in round numbers has been £18,000., and so far the working has proved very successful. The total capacity of the settling and detritus tanks is 650,000 gallons.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are unchanged in price and position. Carbolic acids are steady at 2s. 2d. for crude and 7½d. crystals. Naphthas are strong, but unchanged in price. Grease oils advancing. Anthracene keeps about the same. Pitch is moving satisfactorily at full prices, West Coast quotation being 33s 6d.

Sulphate of ammonia is in a very depressed state, and prices are again much easier. Beckton quotation is £11. 7s. 6d. London outside makes are quoted £11. 8s. 9d., Hull £11.7s. 6d., and Leith £11. 7s. 6d. to £11. 8s. 9d. Nitrate of soda is quietly steady.

MISCELLANEOUS CHEMICAL MARKET.

The brisk demand for products of the alkali trade is maintained, and the advance in price seems rather to have stimulated buyers into covering requirements ahead. Considerable business has been done in alkali and bleach over next year. There is no further change in quotations, price being for bleach, £5. 5s. per ton, softwoods, f.o.r.; and alkali, 58%, £4 2s 6d., bags. Soda crystals, 55s. per ton, bags; and bicarbonate, £6. 5s., rails, makers' works. Caustic soda is in fairly steady request and prices are firm both for spot and forward delivery. Quotations, f.o.b. Liverpool, are as follows:—76%, £9. 5s.; 74%, £9.; 70%, £8. 10s.; 60%, £7. 10s. per ton. Chlorates of potash and soda are still unchanged in values. Sulphate of copper is a steady market at £26., f.o.b., for spot, and £25. 10s. per ton forward delivery. Recovered sulphur £4. 12s. 6d. per ton, f.o.r. White powdered arsenic is distinctly firmer and more active at £19. to £19. 5s., f.o.r., Garston Brown acetate of lime steady at £5. 5s., c.i.f.; grey, £7. 15s. to £8 per ton. For acetate of soda demand is good and price firm at £13. 15s. to £14., c.i.f. White sugar of lead rather better at £22. 10s., c.i.f. Nitrate of lead firm at £22. per ton. Potash, caustic and carbonate, are exceedingly scarce and prices have further advanced. Bichromates unaltered. Oxalic acid quiet at 2⅞d. to 3d. per lb. Yellow prussiate of potash continues scarce for spot delivery and price firm at 8d. per lb. Soda rather easier at 5⅞d. per lb. Sulphocyanides dull. Zinc and tin salts are firm. Prices of ammonia and salts are well maintained. Aniline oil and salt unchanged. There, is generally, a better report of more business doing in the manufacturing districts.

REPORT ON MANURE MATERIAL.

There is no new feature in the market upon which to comment, business in all departments being very quiet.

Furiher sales of 77/80% Florida rock have been made at a shade under highest point touched for 1899 and 1900 shipment. There is, however, nothing fresh to report in Algerian and South Carolina rocks.

East Indian bone meal continues to offer at £4. 17s. 6d. per ton, ex quay Liverpool, for parcels on the way and for early shipments, and for Karachi meal, 5% sand basis, £4. 15s. per ton would be accepted.

Nitrate of soda is steady at 7s. 7½d. per cwt. for good, up to 7s 9d. per cwt. for refined quality.

THE METAL MARKETS.

London, Wednesday.—Pig iron firm: Scotch warrants closed at 67s. 11½d.; Middlesbrough, 67s. 1d. cash; and hematite, 73s. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s, closed at £75. 18s. 9d.

to £76 3s. 9d. cash; and £76. 7s 6d. to £76. 12s. 6d. three months. Tin steady: Straits closed at £146. 15s to £147 5s. cash; and £146. 15s. to £147 5s three months; Australian, £147. 10s.; English ignots £150. to £150 10s. Lead firm: Spanish, £16 10s.; English, £16. 10s. paid. Silesian spelter, ordinary, £22. 5s. Nickel, 1s. 2½d. Antimony, £30. 15s. Quicksilver: first hands, £8. 12s. 6d; second hands, £8. 12s. *Copper Shares* steady: Cape, 3⅞ to 4; Copiapo, 3½ to 3⅝; Libiola, 1⅝ to 1⅞; Mason & Barry, 3⅜ to 3⅞; Rio Tinto, 45⅛ to 45⅜; Tharsis, 7¾ to 8

GLASGOW, WEDNESDAY.—Market firm, and a large business. Scotch done at 68s., 67s. 9d., and 68s cash; also at 67s. 11½d. to 68s. 4d. month; buyers, 67s. 11½d. cash; sellers, 68s. Cleveland done at 67s., 67s. 0½d., and 67s. cash; also at 67s. 4d. to 67s. 4½d. month; buyers, 67s. 0½d. cash; sellers, 67s. 1d.; Cumberland hematite done at 73s. cash; also at 73s., 73s. 4d., 73s. 2d, and 73s. 4d. month; buyers, 72s. 11½d.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is offered very sparingly, and full prices are being paid. Sales include Lagos at £25. 5s. on spot and £25. 10s. ex-quay. Olive is strong, with sellers quoting £34. 10s. to £39 per tun, but prices have checked the demand for shipment parcels. Linseed is firm at 23s. to 23s. 6d. cwt., according to quality for Liverpool makes in export casks. Cottonseed firm and dearer at 19s. 9d. to 20s. cwt. for Liverpool refined. Castor oil is steady, but there is only a retail business doing in good seconds Calcutta at 3d., and 2⅞d. for first pressure French. There is a good business doing in tallow in all grades, and the higher prices ruling have been paid. Resin is steady in all grades and prices are well maintained. Spirits of turpentine are a trifle easier. Spot parcels are offered at 38s 6d, with a demand thereat. Petroleum steady at 7⅛d. to 8½d. for American and 6⅛d. to 6½d. for Russian refined.

CAKES.—Recent arrivals of American Western linseed on the quay have been pretty well cleared at £7. to £7. 5s, but at the close, with a continued good demand from consumers, the market is firmer, and £7. 2s. 6d. to £7. 7s. 6d. is now quoted. For River Plate the value of first hand lots is nominal owing to lack of supplies, but second hand parcels are still quoted at £7. 10s. to £7. 15s.; whilst for Bombay holders are firmer, and now ask £7. 15s. to £8. per ton, with a fair inquiry experienced. Russian are purely nominal in value, with nothing offering here. Liverpool makes continue in fairly active request for consumption, and the quotation is again advanced 2s. 6d. to 5s, home crushers now quoting £8. 5s. to £8. 15s. per ton, according to brand. Good to choice brands of American decorticated cottonseed are without any new feature to mention, with a steady tone ruling in the market £5. 15s. to £6. 5s., according to quality, and moderate sales making thereat. Liverpool makes, however, are 5s. better, with a fair trade passing at the improvement, viz., £6. 10s. to £6. 15s. per ton, according to brand. For Liverpool undecorticated makes there is a continued fair inquiry experienced at £5. 5s. to £5. 10s., according to brand, but spot parcels of Egyptian are very scarce at an advance of 2s. 6d. on Friday's quotation, the supply being almost exhausted, and sellers now ask £5. 5s. per ton.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10 Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Some changes have been experienced in the values of linseed and cotton oils since the prices recorded a week ago; yet in the instance of linseed oils on the spot, values have receded from 20s. 10½d. to 20s. 4½d. spot, naked. Refined cotton oil has touched 17s 3d., but it also has become easier on the turn of the month. Amongst the principal imports to date, against the corresponding time a year ago, are:—Linseed, 392,244 qrs. against 289,948 qrs.; rapeseed, 82,703 qrs. against 57,478 qrs.; cottonseed, 104,155 tons against 133,915 tons; oilcake, 15,144 tons against 9,817 tons; olive oil, 15,144 tuns against 5,498 tuns. The export of linseed oil has totalled 24 tons for the week, being 7 tons to Belgium, 4 Germany, 13 Norway. Linseed oil is firm on the spot, quoted 20s. 4½d. naked; 20s. 3d. last three months; and 19s. 10½d first four months; boiled and refined, £1. to £1. 10s. per ton extra. Refined cotton oil exports have been for the week 125 tons; 6 tons Belgium, 15 Denmark, 2 France, 20 Germany, 73 Holland, 9 Sweden; whilst the quotations in all positions are 17s. naked; casks, £1., and barrels, £1. 10s. per ton extra. Olive oil still firmly held for last week's quotations: Candia, £34. 10s. per ton; Malaga, £35. Olive oil soap much inquired for, makers holding out for full prices, being quoted from £17. per ton upwards. Oleines, £18. to £21. per ton. Tallow scarce and firm in price. Resins unchanged, from 4s. 4d. for B/C grades, to 9s. 6d. for W/W. Castor oil firm and unchanged. Turpentine continues at extreme rates.

OILCAKES.—A new oil extracting company is reaching completion, working a French process, which promises to revolutionise the business here, said to extract and refine oil by the same process. Linseed cakes dearer; 95% pure, £8 7s 6d. to £8. 10s. Oilcakes (linseed), £7. 2s. 6d to £7. 5s.; Russians, £7. 15s. to £8.; Americans, none. Cotton cakes steady; best makes, £5 10s.; seconds, £5. 2s. 6d.; decorticated, none. Rape cake: Black Sea, £4. 10s. per ton.

PAINTS.—Unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The falling off in sulphate of ammonia has been proceeding all the week, and unfortunately at rather an accelerated rate. To-day it is decidedly weak, with even the strongest holders thinking of no more than £11. 10s. prompt, f.o.b., Leith. Very likely it is obtainable at less than that; at all events the impression is that the quotation will be still lower by the end of the week. Otherwise the market in chemicals is healthy. Bleaching powder and soda crystals are very scarce, with quotations inclined still further to the rise. Caustic soda has been put up another mark, and the export figure is now about as high as the home one. This tension is not likely to last, and the closing in of the year will probably be accompanied by some re-action. Mineral oils and solid paraffins are all fairly well held at the recent advances. The new consumptive season for burning oil is now about to begin, and already some early deliveries (ex-contracts) have been made.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s. basis, nett, Tyne: soda ash, £4. 10s. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 7s. 6d. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £9., 70/72° £8 10s., 60/62° £7. 10s, and cream, 60/62° £8., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltcake, 25s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2½d, less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 7½d. to 7s. 9d; sulphate of ammonia, £11. 10s. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £26., less 5% Liverpool; paraffin scale, hard, 2d. to 2½d. per lb., and soft, 2½d. per lb.; paraffin wax, 120° semi-refined, 3d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1., 6¼d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5. 10s., 885°, £6., to £6. 10s. and 890/895°, £6. 15s. to £7. Week's imports of sugar at Greenock were 401 hhds. cane unrefined and 445 packages best unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are unchanged and the business now being transacted is principally for forward. Bleach has been sold for next year at prices somewhat below the undermentioned rates. Coals are scarce and very dear, and the recent advances in chemicals appear to be more than counterbalanced by the high prices asked for fuel and other raw materials.

Bleaching powder, softs, £6. per ton, nett; do., hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. 10s per ton, nett; do ,50%, £4. 12s. 6d. per ton, nett; do., 52%, £4. 15s per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5 per ton, nett; do., 50%, £5. 3s. 9d. per ton, nett; do., 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do, 100° Tw., £3. per ton, nett; do., 140° Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton; nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The market is unchanged. Gas coals are in strong demand at 10s. 6d. and 11s. 3d. per ton. Coke is firm and selling readily at 24s. and 25s. per ton. To-days prices :—Best Northumbrian steam, 11s. to 11s. 6d. per ton; second qualities, 10s. per ton; small steam, 7s. to 7s. 6d. per ton; bunker coals, 10s. 3d. to 11s.; gas coals, 10s. 6d. to 11s.; coke, 24s to 25s.

New Companies.

Irish Chemical Co., Ltd.—Capital, £2,500. in £1. shares. This company has been formed to carry on any kind of chemical business, process or processes, and in particular the business of bone-ash and charcoal manufacturers. The first directors are W. F. Cotton, J. H. Pollock, G. I. Cree, and G. A. Leech. Qualification, 50 shares. Remuneration as fixed by the company.

Societe Generale Des Ciments Portland de Sestoa, Ltd.—Capital £40,000. in £4. shares. This company has been formed to carry on the business of cement, brick, and pipe manufacturers, to adopt an agreement with G. Maurel, and to acquire and work quarries, chalk, phosphate, stone, cement and lime works, etc. The subscribers to the memorandum of association are :—H. B. Brandreth, 91, Jermyn-street, S.W., gentleman; F. W. Cane, The Cottage, Midhurst, Sussex, gentleman; E. Gosling, 139a, Alexandra-road, Kilburn, gentleman; M. Boyd, 2, St. Luke's-road, Clapham, professor; J. P. Geary, 91, Jermyn street, S.W., engineer; W. Best, 1, Broad-street Buildings, E.C., gentleman; S. Bundell, 10, Union Court, E.C., housekeeper.

Karl Miller Ore Reduction Syndicate, Ltd.—Capital £25,000. in £1. shares. This company has been formed to search for, prospect, examine, and explore mines and ground, supposed to contain minerals or precious stones, to acquire certain patents from Karl Miller for reducing ores of all kinds for the purpose of making them friable by chemical means. The subscribers to the memorandum of association are :—H. C. O. Gordon, Haddenham Hall, Bucks, gentleman; F. A. Ford, 3-4, Great Winchester-street, E.C., merchant; R. Larchin, Broad-street Avenue, E.C., engineer; J. Henderson Strong, Copthall House, E.C., merchant; C. Clarkson, 21, Lime-street, E.C., mining engineer; J. B. Walden, 3, Great Winchester-street, E.C., mining broker; A. H. Oxenford, Copthall House, E.C., director.

Imperial Paper Mills of Canada, Ltd.—Capital £150,000 in £1. shares (50,000 preference). This company has been formed to carry on in Canada or elsewhere the business of pulp manufacturers, paper makers, stationers, lithographers, printers, stereotypers, electrotypers, envelope and account book manufacturers, bookbinders, machine rulers, paper bag manufacturers, advertising agents, timber merchants, wood pulp manufacturers, electricians, etc. The subscribers to the memorandum of association are :—F. B. Conyard, 151, Carlton-road, Gospel Oak, N.W., clerk; E. R. Baines, 47, Boswell-road, Thornton Heath, clerk; A. A. Cooper, 200, Barry-road, E. Dulwich, E., clerk; H. G. Campion, 90, Queen-street, E.C., solicitor; E. S. Bateman, 55, Childers-street, Deptford, S.E., clerk; R. F. Lloyd, Hern Villas, 70, Forest Hill-road, S.E., clerk; R. W. Marchant, 37, Clifton-road, Peckham, S.E., clerk. Registered office, 78, Queen Victoria-street, E.C.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending September 23rd.

Acetic Acid—

Holland,	125 pks.	R. W. Greeff & Co.
,,	10	F. Bochen
,,	93	A. & M. Zimmermann

Acetone—

Holland	2 cks.	Hernu Peron, & Co.
Germany,	19 dms.	Petri Brs.
,,	10	T. H. Lee
Austria,	18	T. Jones & Co.
,,	48	E. Catlin

Alkali—

Belgium,	10 t.	A. G. Barker

Alum—

Holland,	900 pks.	J. White

Antimony Ore—

A. Turkey,	14 t.	Union L. Co., Ltd.
Straits,	30	L. & I. D. Jt. Co.
Sydney,	14	,,
Austria,	47	J. Barber & Co.

Arsenic—

Portugal,	71 brls.	C. verley & Westray
Melbourne,	85 cks.	W. & S. Bowditch

Baryte—

Belgium,	105 pks.	J. L. Lyon & Co.
Germany,	121	,,
,,	42	Taylor Brs.
,,	217	W. Harrison & Co.
Holland,	217	,,
,,	38	P. Jantzen

Bleaching Powder—

Germany,	103 pks.	J. M. Steel & Co.

Bones—

Sydney,	8 t.	Hicks, Nash & Co.

Bromine—

Germany,	20 pks.	A. & M. Zimmermann

Caoutchouc—

Holland,	3 t.	15 c.	Prop. Bull Wf.
Aden,	2	15	L. & I. D. Jt. Co.
,,	2		Wallace Brs.
Germany,	3		,,
,,	2	4	Kleinwort, Sons & Co.
,,		14	Hale & Son
,,		5	L. & I. D. Jt. Co.
Niger,	9	3	,,
,,	1	2	Clarke & Smith
France,		6	Lewis & Peat
E. Indies,	2	19	W. M. Smith & Sons
,,		12	L. & I. D. Jt. Co.
Straits,	47	1	,,
,,	31	10	E. Boustead & Co.
Brazil,	5	4	Kleinwort, Sons.
P. E. Africa,		13	Forbes, Forbes, & Co.
B. Honduras,		2	Jackson & Till
Zanzibar,	1	19	L. & I. D. Jt Co.
,,		6	Gray, Dawes, & Co.
,,	4	19	Hale & Son

Carbon—

Holland,	£130	Netherlands S. B. Co.

Castor Oil—

Belgium,	28 brls.	Sawer, Sons, & Co.
France,	25	Lucas & Spencer's Wf.
,,	25 cs.	Beresford & Co.
Italy,	25	A. & M. Zimmerman

Caustic Potash—

Germany,	19 dms.	Petri Brs.
,,	41	J. M. Steel & Co.

Chemicals *(otherwise undescribed)*

France,	£58	Burnett Brs. & Sons
Norway	196	R. Greening
Germany,	10	L. & I. D. Jt. Co.
,,	41	Argo S. S. Co.
,,	20	A. & M. Zimmermann
,,	104	H. Lambert
,,	9	White Brs.
,,	7	Pronk, Davis, & Co.
,,	12	T. H. Lee
Holland	13	Phillips & Graves
,,	14	H. & G. Dutfield
,,	286	Netherlands S. B. Co.
U. States,	720	S. C. Jones
,,	380	B. & F. Wf. Co. Ltd.
Belgium,	160	S. C. Jones
,,	8	T. Palmer

Citrate of Lime—

Italy,	22 cks.	W. C. Bacon & Co.

Coal Products—

Pitch

Germany,	30 brls.	H. Hunt
,,	50 cks.	Sir C. Price & Son
France,	50	H. Hill & Sons

Tar

N. Russia,	50 brls.	Linck Moeller, & Co.
,,	2,125	Hoare, Marr, & Co.

Cream of Tartar—

France,	3 pks.	Vokins & Co., Ltd
,,	10	C. Atkins & Nisbet
,,	10	Shaw, Saville, & Albion Co.
Holland,	14	Kirkpatrick, Barr, & Co.
Spain,	5	B. & F. Wf Co., Ltd.

Dyestuffs—

Argols

Italy,	303 pks.	B. Jacob & Sons
,,	83	Thames S. T. & L. Co., Ltd.
Austria,	61	,,
Spain,	40	T. S. Tug & L. C., Ltd.

Extracts

Holland,	71 t.	J. Barber & Co.
U. States,	30 pks.	W. C. Barnes & Co.
Austria,	102	Fellows, Morton & Co.
Canada,	110	Boutcher, Mortimore, & Co.

Gambier

Straits,	515 pks.	Brown & Elmslie
,,	508	Prop. Hay's Wf.

Indigo

Germany,	8 srns.	T. H. Lee
,,	8	L. & I. D. Jt. Co.

Saffron

Spain,	1 pk.	J. Barber & Co.

Shumac

Italy,	68 pks.	R. Waters
,,	100	T. Barter & Co.

Tanners' Bark

Natal,	66 t.	Bullard, King, & Co.
,,	71	A. & W. Nesbitt
,,	54	Flack, Chandler & Co.
Belgium,	10	Leach & Co.
Melbourne,	1	T. J. & T. Powell

Turmeric

E. Indies,	20 pks.	L. & I. D. Jt. Co.

Farina—

Holland,	50 pks.	H. Lorenz
Germany,	100	J. Barber & Co.
,,	57	T. H. Lee

Glucose—

U. States,	500 pks.	500 c.	Fellows, Morton & Co.
,,	420	1,890	W. Grose & Co.
,,	400	400	Pearce, Pelly, & Co.
,,	1,350	6,750	H. A. Litchfield & Co.
France,	114	114	Trier, Meyer, & Co.
,,	214	214	W. E. Cole
,,	100	100	C. Barnard
Germany,	30	244	Pickford & Co.
,,	100	100	Trier, Meyer, & Co.

Glue—

France,	£31	Mory & Co.
,,	675	T. M. Duche & Sons
,,	180	Burnett Brs. & Sons
,,	72	J. Harrison
,,	16	Prop. Hay's Wf.
,,	40	B. & F. Wf. Co., Ltd.
U. States,	66	Hopcraft & Co.
Germany,	30	Craven & Co.
,,	130	J. Greig
,,	600	Deering & Robottom
,,	100	L. & I. D. Jt. Co.
Belgium,	30	Leach & Co.
,,	590	G. E. Banes
,,	1,100	Becker & Wagner

Glycerine—

Holland,	£390	J. Barber & Co.
Queensland,	650	H. Hill & Sons
Germany,	27	T. H. Lee

Gutta Percha—

Germany,	4 t.	Pickford & Co.
Straits,	20	H. W. Jewesbury & Co.
,,	20	Prop. Bull Wf.
,,	16	18 Huttenbach & Co.
,,	27	19 Gilman Brs. & Co.
Trinidad,	5	Frith, Sands, & Co
Natal,	10	Jackson & Till
Holland,	3	Netherlands S. B. Co.
,,	7	2 J. Peet & Co

Gypsum—

Germany,	30 t.	Union L. Co., Ltd.

Lamp Black—

U. States,	20 pks.	I. Melon
,,	50	J. Melvin
,,	90 cs.	Binney & Smith

Lead Acetate—

Germany,	9 cks.	Petri Brs.
,,	6	R. W. Greeff & Co.

Litharge—

Holland,	76 pks.	Spies Brs. & Co.

Lithopone—

Holland,	40 pks.	D. Storer & Co.

Manganese Ore—

Germany,	23 t.	L. & I. D. Jt. Co.
,,	12	C. T. Cole & Co.
Turkey,	63	Adam Brs.

Manure—

Belgium,	18 t.	A. & P. Keen
E. Indies,	930	A. Hunter & Co.

Molasses—

U. States,	500 cwt.	2,813 c.	Oblenschlager Brs.

Ochre—

Holland,	110 pks.	Phillipps & Graves
France,	247	W. Harrison & Co.
,,	30	Ellam, Jones, & Sons
,,	4	O'Hara & Hoare

Oxide of Iron—

Germany,	6 pks.	H. Lambert

Paraffin Wax—

U. States,	5,651 brls. 1,150 cs.	Anglo-American Oil Co.

Phosphates—

Belgium,	280 t.	Anglo-Continental Guano Works
France,	260	,,
,,	330	T. Farmer & Co., Ltd.

Potash—

Germany,	£28	T. H. Lee

Potassium Carbonate—

Germany,	4 t.	13 c. H. Lambert
,,	20	J. M. Steel & Co.
France,	2	10 Burroughs & Co.

Potassium Muriate—

Germany	508 bgs.	Bessler, Waechter & Co

Potassium Prussiate—
Holland, 40 cks. J. Owen
Potassium Sulphate—
Germany, 50 t. A. Hunter & Co.
" 500 bgs. F. W. Berk & Co.
Red Lead—
Germany, 6 pks. Stedman, Crowther, & Co.
" 5 J. Barber & Co.
" 11 Randall Brs.
" 103 Blundell, Spence, & Co.
" 38 D. Storer & Sons
Rosin—
France, 29 brls. Poth, Hille. & Co.
U. States, 1,960 T. Nickels & Co.
" 925 Sanders, Wake, & Co.
N. Russia, 166 "
Salicylic Acid—
Germany, 6 pks. T. H Lee
Saltpetre—
Germany, 60 cks. P. Hecker & Co.
" 40 T. H. Lee
E. Indies, 615 bgs Lucas & Spencer's Wf.
Soda Ash—
Holland, 52 t. R. Waters
Soda Crystals—
Belgium, 24 t. 3 c. Leach & Co
Sodium Hyposulphite—
Germany, 190 cs. H Lambert
Sodium Prussiate—
Belgium, 17 cks. J. Owen
Sodium Sulphide—
Germany, 30 cks. H. Wallace & Co.
Starch—
Holland, 40 pks. J. Barber & Co.
" 1,815 Little & Johnston
" 200 Phillipps & Graves
" 100 J. R. Francis & Co.
" 40 G. S. N. Co.
France, 510 W. E. Cole
" 200 J. Barber & Co.
" 1,080 E. & T. Pink
U. States, 100 F. W. Mann
" 500 R. G. Hall & Co.
" 53 L. & I. D. Jt. Co.
" 200 Beck & Pollitzer
Belgium, 500 Becker & Wagner
" 96 Union L. Co., Ld.
" 180 T. Ronaldson & Co.
" 450 T. H. Lee
" 117 Leach & Co.
" 80 J. Harrison
Germany, 2,530 Horne & Co
" 44 Argo S. S. Co.
" 40 Lavington Brs.
Austria, 50 J. Barber & Co.
Stearine—
Holland, 51 bls. J. Owen
France, 90 bgs. H. Hill & Sons
Belgium, 63 "
" 8 cks. "
" 38 bgs. J. Harrison
Germany, 10 cs. London Glucose Co.
Storax—
Austria, 430 A. Faber & Co.
Sulphur—
Belgium 51 t. Sawer, Sons, & Co.
Italy, 500 Fuerst Brs.
" 250 W. C. Bacon & Co.
" 200 Ekman's Pulp & Paper Co., Ld.
Superphosphates—
Belgium, 12 t. Chemical Works
Tallow—
Germany, 10 cks. Covington Brs.
France, 129 H. Hill & Sons
N. S. W., 57 Culverwell, Brooks, & Co.
" 110 Hoare, Wilson & Co.
U States, 20 Finsler & Wheeler
Holland, 85 C. S. Lovell
" 17 J. Barber & Co.
" 10 Phillipps & Graves
Austria, 19 C. Price & Co.
Sweden, 40 Phillipps & Graves
N. Zealand, 80 Australian Meat Co.
" 67 Goad, Rigg & Co.
Queensland, 63 Lucas & Spencer's Wf.
" 156 Beresford & Co.
" 251 N. Z. L. & M. A. Co.
" 63 Phillips & Graves
" 264 Anning & Cobb
" 104 Culverwell, Brooks, & Co.
" 243 Concordia Wf.
" 26 Mordaunt Brs.
" 103 W. France & Co., Ld.
" 256 Phillips & Graves
" 250 Bessler, Waechter, & Co.
Tartar—
Italy, 22 pks B. Jacob & Sons
" 11 Fellows, Morton, & Co.
Tartaric Acid—
Holland, 10 pks. Kirkpatrick, Barr & Co.
Germany, 7 F. C Devon & Co
Italy, 19 Union L. Co., Ld.
Ultramarine—
Holland, 6 pks. Phillipps & Graves
" 12 J. Barber & Co.
" 2 Becker & Wagner
" 6 Netherlands S. B. Co.
" 18 G S N. Co.
Germany, 68 Steinhoff, Sons, & Co.
" 5 Argo S. S. Co
Belgium, 5 W Harrison & Co.
" 4 I. & N.-W R. Co.
Varnish—
U. States, 71 pks. Atlantic Transport Co.
White Lead—
Belgium, 57 pks. T. & W. Farmiloe, Ld.
" 125 Robertson, Selleg, & Co
Germany, 12 Taylor Brs.
" 54 Wilkinson Heywood & Co.
" 22 Burrell & Co.
Holland, 52 Randall Brs.
" 24 Kerestedji & Co.
" 52 D. Storer & Sons
Wolfram Ore—
Queensland, 6 t. J. Blyth & Co.
" 4 James & Shakespeare
Wood Pulp—
——, 200 pks. E. J. & W. Goldsmith
Canada, 399 A. E. Reed & Co.
U. States, 2,650 Henderson, Craig, & Co.
Norway, 800 Andrews & Co., Ld.
" 40 J. S Sharp
" 1,040 W. E. Bott & Co.
" 320 V. T. Mitchell & Co.
" 2 000 E. J & W. Goldsmith
" 3,000 London Paper Mills Co
" 80 Henderson, Craig, & Co
" 200 C. B. R. Maltby
Denmark, 180 W. G. Taylor & Co.
" 220 Johansen & Jorgensen
Sweden, 400 "
" 250 Raby & Mather
" 2,402 Andrews & Co., Ld.
" 200 J. Hudson & Co.
Holland, 78 Henderson, Craig, & Co.
Germany, 127 Becker & Wagner
Belgium, 2,067 J. Harrison
Zinc Oxide—
Holland, 100 pks. M. Ashby, Ld.
" 50 T. H. Lee
" 25 Netherlands S. B. Co.
" 50 J. Matton
Germany, 500 Soundy & Sons
" 12 Prprs. Dowgate Dk.
" 80 M. Ashby, Ld.
France, 50 Kerestedji & Co.
Zinc Sulphate—
Sweden, 100 bgs. Dicketts & Co.

LIVERPOOL.

Week ending September 21st.

Antimony—
Valparaiso, 682 bgs. Merchant Bkg. Co.
Asbestos—
Antwerp, 1 crt
Barytes—
Rotterdam, 160 bgs.
Borate of Lime—
Valparaiso, 1,000 bgs. Duncan, Fox, & Co.
Castor Oil—
Leghorn, 15 cs.
Marseilles, 507 brls.
Chrome Ore—
Sydney, 3,100 bgs.
Colours—
Antwerp, 6 brls.
Hamburg, 2 cks.
Rotterdam, 67 / 11 bls.
Stettin, 1 ck. T. Bartels & Co.
Cream of Tartar—
Bordeaux, 38 cks.
Dyestuffs—
Argols
Leghorn, 1 ck.
Cochineal
Las Palmas, 20 bgs. Burrell & Co.
Cutch
Rangoon, 1,175 bxs.
Extract
New York, 51 brls. McArthur & Co.
" 10 bxs. "
" 63 cks. W. I. Chemical Wks.
Saffron
Valencia, 1 cs.
Valonia
Smyrna, 3 bgs.
Verdigris
Bordeaux, 2 cks.
Farina—
Stettin, 20 bgs.
Glue—
New York, 11 brls.
Rotterdam, 120 bgs.
Glycerine—
Marseilles, 15 dm.
Guano—
B. Ayres, 1,008 bgs Liebig's Meat Extract Co.
Iodine—
Valparaiso, 37 brls. A. Gibbs & Co.
Linseed Oil—
Hamburg, 1 ck.
Lithopone—
Rotterdam, 20 cks.
Magnesite—
Hamburg, 100 bgs.
Molasses—
N. Orleans, 60 brls.
Ochre—
Marseilles, 23 brls.
Paint—
Marseilles, 25 cs. Hawkes Somersville
Paraffin Wax—
New York, 300 brls. Thompson & Bedford
" 660 Anglo-American Oil Co.
Philadelphia, 185 "
Rangoon, 795 cs.
Potash—
Hamburg, 94 cks.
Potassium Prussiate—
Bordeaux, 9 cks.
Pyrites—
Huelva, 1,947 t. Matheson & Co.
Red Lead—
Rotterdam, 50 cks.
Saltpetre—
Hamburg, 63 kgs. / 7 brls.
Sheep Dip—
B. Ayres, 68 cs.
Soap—
Bari. 81 cs.
Marseilles, 1 Clay, Dod, & Co.
" 10 dms.
Naples. 114 cs.
New York, 1,951 bxs.
Sydney, 1 cs. Lever Brs., Ld.
Soapstone—
Genoa, 10 bgs
Starch—
Antwerp, 348 cs.
Boston, 400 bgs. Fowler Brs.
" 1,300 / 200 sks.
New York, 50 bxs. / 20 brls.
Rotterdam, 100 cs.
Stearine—
Antwerp, 13 bgs.
Sulphur—
Catania, 650 ctrs. Robertson & Co.
" 254 brls. / 370 bgs.
Tallow—
Sydney, 1,135 cks. Lever Brs., Ld.
Varnish—
New York, 32 brls.
Quebec, 2 Brentnall & Co.
Rotterdam, 3 cks.
Waste Salt—
Hamburg, 2,500 bgs.
White Lead—
Rotterdam, 41 cks.
Wood Pulp—
Boston, 242 bdls.
Christiania, 64 cs. L. S. Dixon & Co.
Quebec, 1,560 bls. Wertheim & Co.
" 370 bgs. H. B. Wood
Zinc Oxide—
Antwerp, 10 brls.
Rotterdam, 120
Zinc White—
Hamburg, 40 cks.
Rotterdam, 90

HULL.

Week ending September 23rd.

Acids—
Rotterdam, 1 pk. Hull & Netherlands S. S. Co.
Aluminium—
Antwerp, 18 cks. G. Malcolm & Son
Antimony—
Dunkirk, 2 cks. Wilson Sons, & Co., Ld.
Trieste, 30 brls. "
Barytes—
Antwerp, 71 cks. Bailey & Leetham, Ld.
Castor Oil—
Venice, 10 cs. Wilson, Sons, & Co., Ld.
Chemicals *(otherwise undescribed)*
Rotterdam, 8 pks. Hull & Netherlands S. S. Co.
Coal Products—
Alizarine
Rotterdam, 165 pks. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 73 pks. Hull & Netherlands S. S. Co.
Naphthol
Rotterdam, 17 cks. Hull & Netherlands S. S. Co.
Pitch
Archangel, 920 cks.
Copenhagen, 40 brls. Wilson, Sons, & Co., Ld.
Tar
Archangel, 1,569 brls.
Colours—
Amsterdam, 1 bx. Hull & Netherlands S. S. Co
Antwerp, 19 cks. Wilson, 44 pks. Sons, & Co., Ld.
Bremen, 7 cs. J. Pyefinch & Co.
Hamburg, 6 Wilson, Sons, & Co., Ld.
Rotterdam, 17 cks. Hull & Netherlands S. S. Co.
87 pks.
Trieste, 2 cs. Wilson, Sons, & Co., Ld.
Cream of Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.
Dyestuffs—
Indigo
Boston, 41 cs. Wilson, Sons, & Co., Ld.
Rotterdam, 5 bls. Hull & Netherlands S. S. Co.
Sumach
Palermo, 500 bgs. Wilson, Sons, & Co., Ld.
Trieste, 25 "
Farina—
Hamburg, 120 bgs. Wilson, Sons, & Co., Ld.
Lead Acetate—
Amsterdam, 29 cks. Hull & Netherlands S. S. Co.
Limestone—
Antwerp, 2 crts. Wilson, Sons, & Co., Ld.
Ochre—
Boston, 200 brls.
Dunkirk, 39 cks.
Paint—
Amsterdam, 3 dms Hull & Netherlands S. S. Co.
Bremen, 64 pks. W. R Johnson & Son
New York, 1 cs. Wilson, Sons, & Co., Ld.
Paraffin Wax—
New York, 1,185 brls. Wilson, Sons, & Co., Ld.
Potash—
Antwerp, 10 cks Wilson, Sons, & Co., Ld.
Dunkirk, 16 dms.

Red Lead—
Rotterdam, 5 cks. Hull & Netherlands S. S. Co.

Rosin—
New York, 2 brls. Wilson, Sons, & Co., Ld.
Trieste, 1 ck. ,,

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Hamburg, 100 ,,

Soap—
Gothenburg, 1 cs. Wilson, Sons, & Co., Ld.

Soapstone—
Fiume, 300 bgs. Wilson, Sons, & Co., Ld.

Soda—
Ghent, 100 bgs. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 100 cs. Hull & Netherlands S. S. Co
30 bgs.
Antwerp, 20 cs. Bailey & Leetham, Ld.
,, 130
Bremen, 1,107 Veltmann & Co.
Ghent, 208 Wilson, Sons, & Co., Ld.
Rotterdam, 36 Hull & Netherlands S. S. Co

Stearine—
New York, 8 bds.

Sulphur—
Catania, 2,168 pks. Wilson, Sons, & Co., Ld.
650 bgs.
,, 20 cks.

Talc—
Trieste, 100 bgs. Wilson, Sons, & Co., Ld

Tallow—
Boston, 179 trcs. Wilson, Sons, & Co., Ld.
Dunkirk, 204 cks. ,,
New York, 100 trcs. ,,

Tartaric Acid—
Bari, 65 pks. Wilson, Sons, & Co., Ld.
Ghent, 2 brls. ,,
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.

Ultramarine—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.

Waste Salt—
Hamburg, 500 bgs.

White Lead
Dunkirk, 10 cks.
Ghent, 16 Wilson, Sons, & Co., Ld
Rotterdam, 30 Hull & Netherlands S. S. Co.

Wood Pulp—
Abo, 293 bls.
Bergen, 24 pks. Wilson, Sons, & Co., Ld.
Christiania, 2 cs. ,,
488 bls.
Drontheim, 320 ,,
Gothenburg, 974 ,,
Hamburg, 604 pks. ,,
Harlingen, 406

Zinc Oxide—
New York, 80 brls.

MANCHESTER.

Week ending September 23rd.

Acetate of Lime—
New York, 269 bgs.

Barytes—
Antwerp, 400 bgs.

Coal Products—
Alizarine
Rotterdam, 9 cks.

Colours—
Rotterdam, 128 cks. 33 cs. 74 brls. 13 bxs.

Cottonseed Oil—
New York, 200 brls.

Cream of Tartar—
Rotterdam, 12 cks.

Dyestuffs—
Extract
Rotterdam, 1 ck.
Rouen, 20

Farina—
Rotterdam, 2,500 bgs.
Stettin, 2,200 W. H. Stott & Co.

Gelatine—
Rouen, 87 cs.

Glucose—
New York, 549 brls.
Rotterdam, 10 cks.

Glue—
Antwerp, 7 bls.
Rotterdam, 279 bgs. 7 cs.
Rouen, 13 cks. 20 20

Lead Acetate—
Hamburg, 23 cks.
Rotterdam, 18

Limestone—
Antwerp, 4 cs.

Paraffin Wax—
New York, 1,335 brls. 50 cs.

Potassium Chlorate—
Marseilles, 10 cks.

Potassium Permanganate—
Hamburg, 5 kgs.

Potassium Prussiate—
Rouen, 2 cks.

Red Lead—
Rotterdam, 24 cks.

Rosin—
New York, 750 brls.

Soap—
Marseilles, 16 dms.
Rotterdam, 10 cs.

Sodium Acetate—
Antwerp, 15 cks.

Sodium Prussiate—
Antwerp, 16 cks.

Starch—
Antwerp, 397 cs.
N. York, 2,175 bgs. 140 brls.
Newfairwater, 484 N. W. Jackson
Rotterdam, 220 cs.

Stearine—
Antwerp, 13 bgs.
Rotterdam, 13 bls.

Tartaric Acid—
Rotterdam, 6 cks.

Ultramarine—
Rotterdam, 2 cks.

White Lead—
Antwerp, 6 cks.

Wood Pulp—
Christiania, 200 bls.
Drammen, 1,100
Gefle, 2,740
Gothenburg, 2,457
Hamburg, 320 pks. 30
Kallero, 2,400
New York, 41 cs.
Stettin, 1,165 W. H. Stott & Co.

Zinc Oxide—
Antwerp, 10 cks.

Zinc White—
Rotterdam, 5 cks.

GLASGOW.

Week ending September 28th.

Acetic Acid—
Rouen, 9 cks.

Alcohol—
Boston, 100 brls.

Barytes—
Amsterdam, 22 cks.
Hamburg, 100 bgs.

Bichromate—
Hamburg, 40 cks.

Bleach—
Hamburg, 33 cks.

Borax—
Rouen, 5 cs.

Castor Oil—
Marseilles, 4 cks. 18 cs.

Coal Products—
Alizarine
Rotterdam, 5 brls. 159 cks. 1 cs. J. Rankine & Son
Aniline
Rotterdam 41 cks. 13 cs. J. Rankine & Son
Amsterdam, 1 ck. ,,
Aniline Colours
Amsterdam, 1 ck.

Cobalt—
Rouen, 3 cs.

Colours—
Hamburg 31 cks. 7 cs. 1
Rotterdam, 222 pks. 5 brls. J. Rankine & Son

Copper Precipitate—
Huelva, 100 t. Tharsis Sulphur & Copper Co.

Dyestuffs—
Extract
Rouen, 5 cks.
Sumac
Marseilles, 50 sks.

French Chalk—
Fiume, 50 bgs.

Glue—
Rotterdam, 10 bgs. J. Rankine & Son
Rouen, 12 cks.

Guano—
Talknafjord, 1,083—

Iron Oxide—
Trieste, 26 brls. Ferguson & Reid

Magnesite—
Hamburg, 1 ck.

Ochre—
Rouen, 84 cks.

Oxalic Acid—
Hamburg, 14 cks.

Paint—
New York. 45 kgs.

Paracul Acid—
Amsterdam, 2 cs. J. Rankine & Son

Potash—
Hamburg, 71 cks. 20 kgs.

Pyrites—
Huelva, 1,845 t. Tharsis Sulphur & Copper Co.

Salammoniac—
Rotterdam, 30 cks. J. Rankine & Son

Salt—
Hamburg, 6 cs. 121,840 kilos. 126 cks. 1,000 bgs.

Soap—
Fiume, 21 cs.

Soda—
Rouen, 9 cks.

Soda Crystals—
Marseilles, 18 cks.

Sodium Nitrate—
Rotterdam, 19 cks. J. Rankine & Son

Starch—
Fiume, 20 bgs.
New York, 245 sks.

Tannin—
Hamburg 18 pcs. 5 cks.

Tartaric Acid—
Hamburg, 8 cks.
Rotterdam, 3 J. Rankine & Son

Ultramarine—
Hamburg, 1 cs.

Waste Salt—
Hamburg, 254 cks. 1,712 bgs. 430 t.

White Lead—
Rotterdam, 30 pks. 20 brls. J. Rankine & Son

Wood Pulp—
Hamburg, 305 bls.
Christiansand, 602
Christiania, 1,792 66 cs.

Zinc Sulphate—
Rotterdam, 5 cks.

Zinc White—
Rotterdam, 20 cks. J. Rankine & Son

TYNE.

Week ending September 23rd.

Asbestos—
Hamburg, 40 bgs. Tyne S. S. Co.
Rotterdam, 2 2 bls. ,,

Barytes—
Antwerp, 400 bgs. Tyne S. S. Co.
Hamburg, 29 cks. ,,

Colours—
Hamburg, 1 ck. Tyne
1 cs. S. S. Co.

Glue—
Hamburg, 5 bgs. Tyne S. S. Co.

Limespar—
Hamburg, 200 bgs. Tyne S. S. Co.

Limestone—
Antwerp, 19 crts. Tyne S. S. Co.

Magnesite Cement—
Hamburg, 20 cs. Tyne S. S. Co.

Paint—
Christiania, 1 cs.

Phosphates—
Dunkirk, 285 t. 14 c. H. Bell & Sons

Plumbago—
Hamburg, 4 cks. Tyne S. S. Co.

Pyrites—
Huelva, 2,789 t. Tharsis Sulphur & Copper Co.

Salt—
Hamburg, 150 bgs. Tyne S. S. Co.

Silver Lead—
Almeria, 1,665 bars Walker, Parker & Co.

Soap—
Rotterdam, 11 cs. Tyne S. S. Co.

Starch—
Antwerp, 85 cs. Tyne S. S. Co.
Rotterdam. 98 ,,

Sulphur Ore—
Drontheim, 750 t. Bede Metal & Chemical Co

Wood Pulp—
Christiania, 880 bls.
Gothenburg, 10 pks.
Reval, 236 Good & Redmayne

GOOLE.

Week ending September 20th.

Acetic Acid—
Rotterdam, 5 pks.

Alkali—
Calais, 7 cks.

Antimony—
Boulogne, 7 cks.

Barytes—
Antwerp, 100 bgs.
Rotterdam, 40

Coal Products—
Alizarine
Rotterdam, 16 brls.
Aniline
Rotterdam, 32 cks. 2 cs.

Dyestuffs (*otherwise undescribed*)
Amsterdam, 2 cks.
Boulogne, 14 cs. 88 pks.
Rotterdam, 300 53

Potash—
Calais, 68 dms.
Dunkirk, 28 cks.

Saltpetre—
Hamburg, 4 cks.
Rotterdam, 100 bgs.

Ultramarine—
Rotterdam, 1 ck.

Waste Salt—
Hamburg, 370 cks.

GRIMSBY.

Week ending September 23rd.

Barytes—
Hamburg, 8 cks.

Chemicals (*otherwise undescribed*)
Antwerp, 1 ck.

Colours—
Antwerp, 7 cks. 63 pks.
Hamburg, 124 85
Rotterdam, 1 20 bgs.

Ferro Chrome—
Antwerp, 40 cs.

Plumbago—
Hamburg, 2 cks.

Salt—
Hamburg, 1,000 bgs.

Zinc Ashes—
Antwerp, 9 cks.
Rotterdam, 10

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending September 27th.

Alkali—
Rio de Janeiro, 6 c. £8

Alumina Sulphate—
Lisbon, 21 t. 12 c. £85

Ammonia—
St. Petersburg, 4 c. £38
Calcutta, 8 cs 11
Pt. Elizabeth 10 15
Constantinople, 4 12

Ammonium Carbonate—
Singapore, 1 t. £20
Paris, 1 27
Hiogo, 6 5 c. 175
Yokohama, 5 140
Dunkirk, 2 12 78
Hamburg, 4 18 45 cks. 283

Ammonium Muriate—
Cologne, 10 cks. £53

Ammonium Sulphate—
Amsterdam, 256 t. 8 c. £3,061
Hamburg, 255 2,079
Bremen 55 660
Antwerp, 100 1,200

Arsenic—
Brisbane, 43 pks. £28
Montreal, 1 t. 30

Boracic Acid—
Bombay, 1 t. £25
Sydney, 10 c. 14

Borax—
Pt. Elizabeth, 10 c. £20
Townsville, 6 t. 53
E. London, 8 6 394

Calcium Chloride—
Madras, 9 dms. £34

Carbonic Acid Gas—
New York, 29 cs. £15
Alexandria. 1 t. 13
Channel Is., 78 tubes 29

Caustic Soda—
Hobart, 3 c. £13
Pt. Elizabeth, 1 t. 2 21
Brisbane, 1 22
Wellington, 1 1 43

Chemicals *(otherwise undescribed)*
Halifax, 1 cs. £41
" 25 hhds. 40
Brussels, 11 kgs. 77
Bombay, 2 cks. 37
Antwerp, 30 48
Brisbane, 1 16
Las Palmas, 100 bgs. 39
Ostend, 5 95
Bordeaux, 28 41
E. London, 3 —
Karachi, 2 1 24
Dunedin, 1 15
Adelaide, 171 pks 20
M. Video, 550 303
Amsterdam, 2 76
Hong Kong, 10 15
Toronto, 10 18
Rotterdam, 5 kgs. 4 48 213
Durban, 5 5 57
Cape Town, 31 —
Wellington, 2 10
Montreal, 21 27
Auckland, 167 162
Yokohama, 20 457
Melbourne, 20 45 148
Stettin, 6 45
Hamburg, { 32 / 5 cks. 379
Boulogne, 1 16
Pt. Elizabeth, 1 c. 1 30

Chloride of Gold—
Pt. Elizabeth, 1 cs. £56

Citric Acid—
Fremantle, 2 c. £17
Yokohama, 1 t. 10 234

Coal Products—
Alizarine
Bombay, 104 cks. £281
St. Petersburg, 4 cs. 175
Boston, 32 380

Aniline
Brisbane, 1 ck. £5
New York, 7 dms. 101
Calcutta, 3 cs. 36
Melbourne, 2 14
Carbolic Acid
Brisbane, 2 cs. £12
Sydney, 100 dms. 75
Callao, 1 5
Hong Kong, 6 30
St. Petersburg, 50 cks. 330
Shanghai, 2 7
Melbourne, 200 88
Bombay, 100 43
Cresylic Acid
Melbourne, 100 dms. £46
Mirbane Oil
Brussels 20 dms. £15
Naphtha
Barbadoes, 1 cs. £7
Melbourne, 70 dms. 67
Naphthaline
Melbourne, 7 cks. £10
Antwerp, 2 13
Hamburg, 8 73
Sydney, 40 kgs. 9
Pitch
Bremen, 2 cks. 4 cs. £20
Amsterdam, 1,281 t. 1,922
Montreal, 341 brls. 79
Pyridine
Cologne, 25 cks. £252
Tar
Malta, 10 brls. £12
Las Palmas, 5 5
Trinidad, 5 7
Madras, 6 5
Toluol
Rotterdam, 50 cks. £158

Coal Products *(otherwise undes.)*—
Boulogne, 5 cks. £39
Cape Town, 40 dms. 5

Copper Sulphate—
Rotterdam, 4 t. 19 c. £123

Cream of Tartar—
Townsville, 1 t. £77
Hobart, 11 c. 38
Fremantle, 10 41
Hiogo, 15 61
Wellington, 7 kgs. 12 76

Disinfectants—
Sydney, 8 cks. 10 cs £67
Wellington, 1½ 18
Madras, 50 50 dms. 57
Swatow, 25 10
Melbourne, 6 14
Montreal, 3 50 14
Durban, 80 28
Pt. Elizabeth, 148 51
B. Ayres, 153 pks. 136
New York, 12 t. 2 c. 172
Rotterdam, 10 16

Glycerine—
New York, 18 t. 2 c. £525
Shanghai, 11 28

Lead Acetate—
Durban, 1 t. £26

Lithia Carbonate—
Melbourne, 1 cs £68

Manure—
Genoa, 80 t. £513
Hobart, 4 10 c. 50
Jersey, 84 271
Jamaica, 30 200
Auckland, 133 425
Bluff, 122 390

Mercuric Chloride—
Libau, 2 cs. £56
Lisbon, 1 27

Mercuric Oxide—
Amsterdam, 4 cs. £128

Nitric Acid—
Channel Is., 15 crbys. £21

Oxalic Acid—
Sydney, 1 t. 6 c. £37

Phosphatic Acid—
Durban, 2 c. £11

Potash—
Bordeaux, 1 cs. £10
Lyttelton, 10 c. 56

Potassium Chlorate—
Montreal, 15 c. £28

Potassium Cyanide—
Bundaberg, 1 t. £112
Fremantle, 12 1,456
Townsville, 10 1,213
Geraldton, 10 c. 56
Madras, 17 80
Melbourne, 8 6 40 cs. 1,236
Sydney, 7 817
Delagoa Bay, 12 1,293
Rockhampton, 1 115
Singapore, 2 12
Cape Town, 2 207
Auckland, 50 502

Potassium Prussiate—
Leghorn, 2 cks. £38

Salammoniac—
Copenhagen, 1 cs. £8

Saltpetre—
Montreal, 1 t. 14 c. £41
Oporto, 3 14 75
Santos, 2 10 58

Sheep Dip—
Gallegos, 10 t. 9 c. £250
Antwerp, 66 19 1,875
Cape Town, 32 dms. 18
Pt. Elizabeth, 1,250 145
Jamaica, 20 9
Auckland, 55 pks. 20
Novorossisk, 32 20

Soap—
Hamburg, 5 t. £130

Soda—
Wellington, 2 t. £12

Soda Crystals—
Colombo, 1 t. 12 c. £5

Sodium Bicarbonate—
Calcutta, 3 c. £7

Sodium Hyposulphite—
Adelaide, 32 t. 2 c £147
Fremantle, 1 2 7

Sodium Prussiate—
Antwerp, 5 t. 8 c. £235

Sodium Sulphate—
Ghent, 100 t. £150

Sodium Sulphide—
B Ayres, 4 t. 15 c. £20

Strychnine—
Townsville, 5 cs £50
Sydney, 10 87
Melbourne, 10 50

Sulphur—
Hamburg, 1 t. £9
Pt. Elizabeth, 2 5 c. 16

Sulphuric Acid—
Madras, 125 cs. £50
Rangoon, 30 29
Cape Town, 1 t. 3 c. 11

Superphosphates—
Auckland, 50 t. £163
Colombo, 19 135

Tartaric Acid—
Callao, 10 c. £66
Sydney, 11 70
Wellington, 9 55
Durban, 2 cs 12

LIVERPOOL

Week ending September 27th.

Ammonia—
Callao, 1 c. 3 q. £7
Rangoon, 1 cs. 6

Ammonia (Anhydrous)—
Gibraltar, 3 c. £2

Ammonium Carbonate—
Vera Cruz, 2 c £3
Tokio, 2 t. 10 75
Stettin, 1 2 2 q. 32
Montreal 10 13
Marseilles, 1 31
Hamburg, 1 2 3 33

Ammonium Muriate—
Barcelona, 1 t. 10 c. £32
Stettin, 5 5
Philadelphia, 19 9 2 q. 419
Melbourne, 3 cks. 23

Ammonium Sulphate—
Gd. Canary, 10 t. 3 c. 3 q. £125
Hamburg, 50 10 617
New York, 49 5 591
Alicante, 10 18 130
Cape Town, 3 1 1 38
Barcelona, 51 8 3 619
Philadelphia, 95 9 3 1,190
Teneriffe 14 12 190
Bordeaux, 20 9 1 250
Las Palmas, 3 32

Antimony—
Potosi, 2 c. 1 q. £13

Basic Slag—
Pomaron, 50 t. £95
Nantes, 271 401
Granville, 410 310

Bleaching Powder—
Ancona, 30 cks.
Boston, 634
Calcutta, 150 cs.
E. Pepperell, 98
Fremantle, 230 71 bls.
Lisbon, 48
Lockhaven, 49
Nantes, 24 15 brls.
New York, 244 25
Pt. Natal, 4 bxs. 20 dms.
Rio de Janeiro, 1
Rouen, 81
San Sebastian, 50
Tampico, 9 brls.

Boracic Acid—
St. Johns, 1 t. 7 c. £30
Adelaide, 1 26
Melbourne, 1 28
Hamburg, 3 11 92

Borax—
Sta. Clare, 1 t. £16
Antwerp, 3 11 c. 3 q. 60
Hamburg, 20 13 3 352
Toronto, 20 12 3 335
Tientsin, 11 20
Montreal, 6 2 96

Calcium Chloride—
Leghorn, 10 t. 5 c. £24

Castor Oil—
Bocas del Toro, 5 cs.
Corumba, 4

Caustic Potash—
Hong Kong, 6 c. £8
Baltimore, 4 6
Sydney, 5 t. 2 129

Caustic Soda—
Algoa Bay, 1 t. 18 c.
Amsterdam, 280 dms.
Ancona, 77
Antofagasta 35
Barcelona, 130
Bari, 67
Bilbao, 40
Boston, 100
B. Ayres, 9 20 kgs.
Calcutta, 257
Catania, 38
Chemulpo, 25
Chicago, 275
Coquimbo, 30
Corinto, 14
Corunna, 10
Dallas, 100
Fremantle, 195 10 pks.
Galatz, 557
Genoa, 98
Gothenburg, 20
Guaymas, 100
Gutujewsky, 84 brls.
Hamburg, 95
Hamilton, 40
Hiogo, 444
Hong Kong, 181
Kiel, 30
Kobe, 158
Limon, 30
Lisbon, 519
Malaga, 20
Marseilles, 100
Mauritius, 10
Melbourne, 553 25
M. Video, 101
Montreal, 5 cks. 10
Naples, 26
Newfairwater, 29
N. Orleans, 130
New York, 100
Oporto, 43
Paranagua, 10
Pasages, 25

Penang, 35
Pernambuco, 23
Porto Alegre, 10
Quebec, 50
Rio Grande, 160
Rotterdam, 53
Riga, 10
Rio de Janeiro, 20
Santos, 28
Sarnia, 40
Tampico, 35
Sydney, 192 23 14 5 bxs.
Tarragona, 50
Valencia, 15 41
Valparaiso, 25
Vera Cruz, 172

Chemicals *(otherwise undescribed)*
Lisbon, 10 t. 3 c. 3 q. £50
Bourgas, 3 3 15
Para, 9 2
Larache, 2 14 13
Natal, 1 2 5
Bombay, 30 brls. 142
New York, 21 1 524
Genoa, 8 5 47
Odessa, 5 150
Hamburg, 2 58
Melbourne, 5 25
Antwerp, 1 2 33
Philadelphia, 14 12 378
Stockholm, 2 cks. 24
Lisbon, 1 8
Montreal, 2 27

China Clay—
Baltimore, 912 cks.
Boston, 1,704 348 l gs.
Calcutta, 472
Montreal, 20 20 pks.
Newport News, 400
N. York, 200 t. 340
Philadelphia, 200 153
Santos, 4

Coal Products—
Alizarine
New York, 20 brls.
Aniline Colour
Genoa, 10 kgs. 3 cs.
New York, 2 1 20 cks.
Aniline Dyes
St. John's, N'fd, 1 cs.
Aniline Salt
Hamburg, 2 cks.
Rotterdam, 20 kgs.
Valleyfield, 8 cs.
Carbolic Acid
Callao, 2 c. 1 q. £5
Vera Cruz, 2 11
Odessa, 6 2 23
Santander, 9 3 34
B. Ayres, 8 t. 18 1 250
Lisbon, 4 3 17
New York, 4 17 1 330
Warri, 4 dms 14
Antwerp, 2 3 44
Philadelphia, 1 2 26
Gibraltar, 4 cs. 14
Creosote Oil
S. Francisco, 1,250 cks
Pitch
Bathurst, 10 cks.
Nantes, 31 t.
Tar
Manaos, 35 dms.
Philadelphia, 12½ brls

Copperas –
Valparaiso, 2 t. 18 c. 1 q. £5

Copper Sulphate—
Newfairwater, 1 t. 5 c. 2 q. £31
Samarang, 3 68
Odessa, 2 2 3 47
Konigsberg, 5 2 113
Christiania, 5 6
Rotterdam, 6 18 2 162
Catania, 2 12 3 53

Dextrine—
Barcelona, 7 t. 8 c. £ 37

Disinfectants—
Calcutta, 2 t. 18 c £35
Rangoon, 3 cks. 6 dms 14

Glycerine—
Bilbao, 28 t. 4 c. £1,052
Callao 2 2 q. 6
Kobe, 2 120
Lisbon, 13 3 28
Vera Cruz, 1 10
Yokohama, 3 8 150

Guano—
Barcelona, 49 t. 4 c. £400
Malaga, 59 16 459

Magnesia—
Havana, 2 pks.
Paris, 100 cs.
Trieste, 4 tcs.

Manure—
Teneriffe, 30 t. 7 c. £337

Paint—
Antwerp, 70 dms.
Alexandria, 1
Alicante, 29 cks.
Belize, 50 kgs.
Beyrout, 125
Bolama, 5 cs.
Bakana, 20
Calcutta, 14 1 20
Cape Hayti, 5 cks.
Cavite, 60
Coquimbo, 33
Delagoa Bay, 5
Gibraltar, 80 kgs.
Halifax, 19 cks.
Hamburg, 9 24 1
Havana, 2
Iquique, 13 65
Manaos, 23
Mangalore, 36 kgs.
Matanzas, 12 cks.
Ponce, 1
Pt. Natal, 24
St. John's, N'fd., 4
San Francisco, 8
San Juan, 100
Sulina, 5
Talcahuano, 56 40 brls.
Valparaiso, 40 kgs. 50
Yokohama, 200 80

Painters' Colours—
Bathurst, 16 dms.
Canea, 90 kgs. 8 cks.
Iquitos, 3 brls.
Manaos, 12 18
Montreal, 50
Para, 65 46
Nassau, 100 3 cs.
New York, 5 bxs. 1 10 pks. 354 brls.
Rio de Janeiro, 16 cks.
Rotterdam. 50 bgs.
St John's N'fd., 1 pk.
Salahora, 10
Valparasio, 25 kgs.
Vigo, 1 cs.

Paraffin Wax—
Boston, 50 cs.
Cairo, 75
Fiume, 10 bgs.
Galata, 50
Genoa, 120
Odessa, 10
Tampico, 10

Phosphorus—
B Ayres, 10 c. £75
M Video, 5 3 q. 45
Potosi 4 cs. 35
Shanghai, 48 325
San Luis, 6 c. 47

Potassium Bichromate –
Alexandria, 1 t. £35
Venice, 3 4 c. 133

Potassium Chlorate—
Lisbon, 10 t. £311
Melbourne, 1 35
Naples, 1 30
Potosi, 8 c. 17
Rotterdam, 1 30
Sydney, 1 35

Potassium Cyanide—
Johannesburg, 5 t. 1 c. £500
Mollendo, 5 45
Rio de Janeiro. 7 700

Sal'ammoniac—
Alexandria, 2 t. £65
Ancona, 5 c. 2 q. 8
B. Ayres, 10 17
Philadelphia, 5 2 169
Syra, 5 8
Trieste, 1 32

Salt—
Algoa Bay, 50 sks.
Antwerp, 40 t. 1,102
Baltimore, 400
Barbadoes, 25
Benin, 160 bgs.
Bilbao, 5 cs
Brussels, 100
Boston, 98 t. 6 c. 1,102 cks.
B. Ayres, 15 4
Calcutta, 1,579
Christiania, 103 3
Colombo, 2
Conakry, 30
Dunedin, 50
Frederickshald, 298 7
Ghent, 170
Halifax, 101 13
Hamburg, 99 11
Keflavik, 124
Kolding, 227
Lagos, 50
Melbourne, 205 10
Mossel Bay, 25
Montreal, 378 10
Newcastle, 330
N. Orleans, 75
Old Calabar, 90
Opobo, 5
Para, 500
New York, 91
Pt. Elizabeth, 10 cs.
Quebec, 150
Rotterdam, 250
Rio de Janeiro, 1
St. Petersburg, 200
Santos, 50
Shediac, 534 13 c.
Sherbro, 30
Sierra Leone, 100
Singapore, 5 cks.
Sydney, 135
Trinidad, 30 7
Wellington, 75
1,500 bgs.

Salt Cake—
Sydney, 10 t. 10 c. £26

Saltpetre—
Halifax, 1 t. 5 c. £26
Malta, 4 5
Natal, 1 3 2 q. 25

Sheep Dip—
B. Ayres, 250 dms. 3 t. £406
Calcutta, 20 20
Rangoon, 73 120
Wellington, 4 4 c. 115

Soap—
Alexandria, 5 brls.
Algoa Bay, 1283 bxs. 18 bdls. 635 cs.
Antwerp, 104
Appam, 56
Bathurst, 80
Bermuda, 100
Boma, 35
Bombay, 1,890
Buluwayo, 54
Calcutta, 200 91 500
Callao. 1
Carbonear, 61
Cartagena, N.G., 1
Colombo, 25 15
Conakry, 717
Coquimbo, 2
Corinto, 375
Curacao, 60
Fremantle, 4,500
Genoa, 45
Gd. Canary, 252
Grenada. 73
Greytown. 100
Guayaquil, 1
Havana, 9
Havre, 80
Johannesburg, 50
Kimberley. 50
Kingston, Ja. 1,302 2
Lagos. 11
Lanzarote, 12
Manaos, 1,700
Mannheim, 926
Monrovia, 100
Montreal, 502
New York, 39 2 cks.
Ottawa, 400
Para, 100 1 250 bdls.
Perth, 24
Piræus, 1
Ponce, 2
Pt. Elizabeth, 700
Pt. Natal, 1,045 93
Quittah, 50
Rangoon, 611 8
Rotterdam, 400 207 1 crte. 5 pks.
St. John's, N'fd 1135 11 1
Salonica, 50
Salt Pond, 56 1
Sapeli 700
Shanghai, 5,508
Sierra Leone, 248 1
Singapore, 1,954
Teneriffe, 290
Thomas Bay, 10
Trinidad, 600
Valparaiso, 110
Winnebah, 56
Yokohama, 10

Soda—
Corinto, 15 brls.
Hong Kong, 8 cks.

Soda Ash—
Boston, 52 tcs. 62 cks.
Brisbane, 256
Calcutta, 60 kgs. 55
Catania, 60 bgs.
Copenhagen, 200
Delagoa Bay, 100 kgs.
Genoa, 150 bgs.
Gothenburg, 55
Limon, 50
Lisbon, 34
Madras, 10
Melbourne, 79
M. Video, 5 brls.
New York, 84 tcs. 105
Oporto, 30
Philadelphia, 1,160 31
Rio Grande, 484
Rio de Janeiro, 95 brls. 50
Rotterdam, 534
Saigon, 60
San Francisco, 40
Smyrna, 650
Sydney, 36

Soda Crystals—
Alexandria, 50 brls.
Constantinople, 160
Coquimbo, 20
Malta, 50 75 pkgs.
Montreal, 334
Quebec, 25 75
St. John's. N'fd., 50

Sodium Bicarbonate—
Bombay, 6 kgs.
Brisbane, 280
B. Ayres, 20 cks.
Calcutta, 560
Cape Town, 30
Danzig. 34 pks.
E. London, 20
Gibraltar, 20
Halifax, 100 dms.
Havana 20
Hiogo. 500
Hong Kong, 20
Madras, 40 80 cks.
Malaga, 32 pks.
Malta. 12 dms.
Melbourne, 50
Mexico City, 10
Montreal, 100 bgs.
Rangoon, 20 10 kgs. 12 cks.
Rio de Janeiro, 10
Rotterdam. 80
St. John's, N'fd. 10
Singapore. 21 18

Sodium Chlorate—
Philadelphia, 50 kgs.
Rouen. 100

Sodium Silicate—
Corunna. 60 brls.
Mauritius, 10
Rouen, 15 cks.

Sulphur—
Algoa Bay, 2 t. 4 c. £15
Boston. 51 2 213
Gothenburg, 225 1 933
Montreal, 175 1 744
Natal, 7 10 35
Tampico 40 180
St. John, N.B., 1 16 1 q. 12

Sulphuric Acid—
B. Ayres, 4 t. 10 c. £27
Hong Kong, 17 9
Maceio, 10 cs. 8
Singapore, 17 c. 9

Superphosphates—
Barcelona, 200 t. £550
Cartagena, 100 1 c. 1 q 8.0
Huelva, 257 623
La Pallice, 732 5 1,940
Lisbon, 150 3
San Sebastian, 9 16 28
Valencia, 130 1 272

Tartar Emetic—
Vera Cruz, 6 c. £58

Tartaric Acid—
Algoa Bay, 4 c. 2 q. £19
Callao, 1 7

Varnish—
Alexandria, 3 brls.
Bombay, 10 dms.
B. Ayres, 6 cs.
Canea, 1
Cape Town, 16
Hiogo, 10
Malaga, 6 cks.

White Lead—
Tampico, 36 cs.

Zinc Chloride—
Bombay, 3 t. 14 c. 1 q. £149

MANCHESTER.

Week ending September 27th.

Alkali—
Bombay, 8 cks.
Bleaching Powder—
Montreal, 16 cks.
Sherbrooke, 53
Chemicals *(otherwise undescribed)*
Montreal, 50 brls. 50½ tcs.
Coal Products—
Aniline Colours
Germany, 3 cks.
Aniline Oil
Belgium, 1 dm.
Carbolic Acid
France, 120 btls.
Germany, 74 cks.
Montreal, 14
Naphthol
Holland, 2 cks.
Pitch
Belgium, 279 t.
Toluol
Germany, 40 dms.
Colours—
Hamburg, 1 cs.
Dyestuffs—
Extract
Belgium, 24 cks.
France, 8
Gamma Acid—
Hamburg, 7 cks.
Gelatine—
Bombay, 1 cs.
Glue—
Belgium, 6 cks.
Germany, 5
Glycerine—
Germany, 20 dms.
Hamburg, 20 cs.
Paraffin Wax—
Bombay, 1 cs.
Salt—
Montreal, 100 t.
Soap—
Sydney, 88 cs
Sodium Naphthionate—
Switzerland, 34 cks.
Starch—
Bombay, 5 bgs.
Varnish—
Rio de Janeiro, 1 cs.
Sodium Sulphate—
Montreal, 5 cks.

HULL.

Week ending September 23rd.

Ammonium Alkali—
Drontheim, 1,200 bgs.
Ammonium Sulphate—
Rotterdam, 65 bgs.
Rouen, 305
Stettin, 575
Caustic Soda—
Riga, 55 cks. 674 dms.
Chemicals *(otherwise undescribed)*
Abo, 6 cs.
Amsterdam, 50 cks 22 btls.
Bremen, 13
Christiania, 2 72 pks.
Constantinople, 1
Copenhagen, 20
Gothenburg, 2 6 364 slbs.
Hamburg, 58 141
Konigsberg, 9 2
New York, 135
Odessa, 60
Riga, 51 553 pks
Rotterdam, 26 20
Stettin 13 9
Stockholm, 25 1
St. Petersburg, 50 2
Coal Products—
Creosote
Hamburg 32 cks.
Konigsberg, 10
Pitch
Antwerp, 64 t.
Tar
Dunkirk, 25 cks.
Hamburg, 7
Cottonseed Oil—
Amsterdam, 38 t. 16c.
Antwerp, 6 1
Christiania, 2 12
Copenhagen, 15 3
Gothenburg, 7 13
Hamburg, 20 15
Rotterdam, 34 12
Rouen, 2 12
Dyestuffs *(otherwise undescribed)*
Gothenburg, 1 cs.
Linseed Oil—
Antwerp, 7 t. 12 c.
Christiania, 4 7
Christiansund, 1 8
Bergen, 3
Drontheim, 5 1
Hamburg, 4 6
Stavanger, 1 19
Manure—
Dunkirk, 50 t.
Painters' Colours—
Amsterdam, 6 cks.
Antwerp, 139 41 cs. 53 dms. 40 pks.
Christiania, 1 36
Christiansund, 17
Copenhagen, 3
Gothenburg, 3 30 dms.
Hamburg, 7 1 22
Konigsberg, 21
New York, 45
Norrkoping, 12
Rotterdam, 5
Rouen, 25
Stettin, 37
St. Petersburg, 1
Plumbago—
Riga, 7 cks.
Soap—
Amsterdam, 270 cs.
Christiania, 1
Starch—
Odessa, 600 cs.
Tallow—
Gothenburg, 5 cks.
Rotterdam, 7
Stockholm, 4
St. Petersburg, 142
Turpentine—
Antwerp, 3 cks.
Varnish—
Christiania, 2 cs. 10 bls.
Gothenburg, 1
Stockholm, 1 ck. 1

GLASGOW.

Week ending September 28th.

Ammonium Sulphate—
Bordeaux, £300
Rotterdam, 20 t. 5c. 1 q.
Basic Slag—
Canada, 1 t.
Bleaching Powder—
Calcutta, 30 t.
Borax—
Adelaide, £12 10s.
Caoutchouc—
Malta, £42 16s.
Castor Oil—
Adelaide, £94
Sydney, 35
Chemicals *(otherwise undescribed)*
Hamburg, £20
Coal Products—
Carbolic Acid
Hong Kong, £60
Rotterdam, 197
Creosote
Bordeaux, £1,100
Pitch
Canada, £172
Christiania, 20
France, 49
Rochefort, 1,550 t. 18c.
Tar
Calcutta, £6
Canada, 73
Bombay, 40
Singapore, 55
St. Petersburg, 596 t. 9c.
Tar Oil
Antwerp, £105
Copperas—
Bombay, 8 t. 18c
Dyestuffs *(otherwise undescribed)*
Calcutta, £63
Victoria, 26
Dyestuffs—
Extract
Canada, £334
Sydney, 35
Tasmania, 21
Victoria, 62
Ferro Silicon—
Fiume, 210 t.
Gutta Percha—
Amsterdam, £18 10cs.
Lead Nitrate—
Canada, £28
Rotterdam, 40
Linseed Oil—
Hong Kong, 1 t. 4c.
Malta, 2 12 2 q.
Logwood—
Canada, £29
Magnesium Sulphate—
Montreal, £38
Paint—
Havana, £61
Tongku, 24 19s.
Painters' Colours—
Bombay, £131
Boston 31
Hong Kong, 120
Sydney, 506
Paraffin Wax—
Antwerp, £130
Bordeaux, 1 5
France, 61
Trieste, 182
Potassium Bichromate—
Adelaide, £29
Amsterdam, 33
Boston, 364
Bruxelles, 56
Christiania, 23
France, 1,065
Melbourne, 178
Philadelphia, 317
Sydney, 70
Victoria, 93 1 s.
Potassium Prussiate—
New York, £160
Red Lead—
Rotterdam, £102
Salt—
Sydney, 5 t. 1c. 3 q.
Sodium Bichromate—
Boston, 1 t. 12c.
Bordeaux, 5 2 q.
France, 22 16 2
Sodium Sulphate—
Calcutta, 5 t.
Starch—
Rotterdam, £275
Tallow—
Rotterdam, 1 t. 16c.
Varnish—
Bombay, £33
Sydney, 133

TYNE.

Week ending September 23rd.

Alkali—
Hamburg, 11 t. 14c. 2 q.
Rotterdam, 5 2 3
St. Petersburg, 29 2
Ammonium Sulphate—
Bergen, 10c. 1 q.
Antimony—
Montreal, 5 t.
Barium Binoxide—
Rouen, 43 t. 9c. 3 q.
Barium Carbonate—
Antwerp, 19 t 5c.
Hamburg, 25
St Petersburg, 51 4
Blanc Fixe—
Rotterdam, 10 t. 2c. 3 q
Bleaching Powder—
Bergen, 10 t. 10c.
Christiania, 35
Copenhagen, 2 11 1 q
Hamburg, 27 16
Konigsberg, 9 8 3
Lisbon, 15 4 1
Rotterdam 9 18 3
St. Petersburg, 1 7 1
Caustic Soda—
Antwerp, 30 t. 8c.
Christiania, 7 5
Montreal, 25 14 3 q.
St. Petersburg, 15
Chemicals *(otherwise undescribed)*
Bilbao, 1c. 3 q.
Coal Products—
Tar
Christiania, 4c. 3 q.
Newmuhlen, 4 t.
Lamp Black—
Rotterdam, 1 t. 3c. 3 q.
Linseed Oil—
Antwerp, 5c.
Litharge—
Lisbon, 2 t. 3c. 2 q.
Magnesia—
Hamburg, 1 t. 14c. 3 q.
Lisbon, 15
Orange Mineral—
Montreal, 12 t. 10c.
Paint—
Antwerp, 6 t. 9c. 2 q.
Bergen, 6 2
Christiania, 4
Hamburg, 2 5
Rotterdam, 4
Red Lead—
Ancona 1 t. 18c. 3 q.
Antwerp, 1 11
Bergen, 26 2 2
Christiania, 8 13 2
Copenhagen, 1 3
Lisbon, 10 4 3
Rouen, 2 13 3
Soda—
Ancona, 9 t. 18c. 3 q.
Antwerp, 1 2
Christiania, 5 15
Jersey, 50
Soda Ash—
Hamburg, 10 t. 2c. 1 q.
Konigsberg, 71 1
Sodium Hyposulphite—
Lisbon, 2 t. 10c.
Rotterdam, 41 1 q.
Sodium Sulphate—
Karlstad, 200 t.
St. Petersburg, 20 5c. 3 q.
Superphosphates—
Stettin, 1,500 t.
Venice, 30 1c.
Tallow—
Antwerp, 2c 2 q.
Varnish—
Antwerp, 1 q.
White Lead—
Copenhagen, 1 t. 1c. 3 q.
Lisbon, 2 13 1
Montreal, 53 4 3

GOOLE.

Week ending September 20th.

Alkali—
Ghent, 1 ck.
Chemicals *(otherwise undescribed)*
Antwerp, 8 dms.
Hamburg, 42 pks
Coal Products *(otherwise undes.)—*
Antwerp, 74 pks.
Boulogne, 103 cks.
Ghent, 1
Hamburg, 5
Rotterdam, 130
Coal Products—
Benzol
Dunkirk, 1 ck.
Colours—
Antwerp, 1c.
Boulogne 21 pks.
Ghent, 12
Rotterdam. 23
Dyestuffs *(otherwise undescribed)*
Ghent, 2 cks.
Hamburg, 1 cs
Manure—
Ghent, 220 bgs.

GRIMSBY.

Week ending September 23rd.

Alkali—
Gothenburg, 10 cks.
Colours—
Antwerp, 11 pks.
Gothenburg. 2 cs.
Rotterdam, 6
Manure—
Esbjerg, 6,208 bgs.

PRICES CURRENT.

WEDNESDAY, Oct. 4, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 & 8/3		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¼
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	15	0
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¼
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- & 33/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. per ton	11	8	9
,, ,, (grey) Hull .. .. ,,	11	7	6
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/-	to	60/-
Bleaching Powder, 35 % .. .. nett ,,	5	5	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	8¾
,, 50/90 ,, ... ,,	0	0	10¾
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	13	6
Solvent Naphths, 90% at 160° .. .. per gallon	0	1	2½
Copper .. .. per ton	75	18	9
,, Sulphate .. .. ,,	26	0	0
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	29	10	0
,, (distilled S.G. 1260°) .. .. ,,	50	0	0
Iodine .. .. nett, per oz.	0	7	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	17	10	0
,, Litharge Flake (ex ship) .. .. ,,	18	0	0
,, Acetate (white ,,) .. .. ,,	22	10	0
,, ,, (brown ,,) .. .. ,,	18	0	0
,, Carbonate (white lead) pure .. .. .. ,,	22	10	0
,, Nitrate .. .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	5	0
,, ,, (grey) (ex ship) .. .. ,,	8	0	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	18	10	0
Linseed .. .. ,,	23	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	15	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0½
,, Hydrate (Caustic Potash) 90 % .. per ton	23	15	0
,, ,, ,, 75/80 % .. ,,	19	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	15	0
,, Nitrate (refined) .. .. ,,	20	10	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	2⅝
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	15	0
,, Acetate (ex-ship) .. .. ,,	13	15	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¼
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	0	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	10	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	10	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	7	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	7½
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	5	0
,, Prussiate .. .. per lb.	0	0	5⅜
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100° Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	6	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4¼
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	26	10	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	150	10	0
Zinc (Spelter) .. .. ,,	22	5	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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AND

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THE CHEMICAL MANUFACTURER AND HIS WOES.

WE think Job must have been connected with the chemical trade in some way or another, because all chemical manufacturers seem to have inherited his imperturbable patience—more or less, and they certainly stand in need of more than ordinary fortitude as things go.

They start life with the knowledge that they are only tolerated as a necessary evil. They are used to their claims for recognition as a factor in the national welfare being lost sight of, or their cry for consideration being drowned by the voices of those who clamour for a garden in a wilderness; but such things are trifles compared with the actual worries of their business.

It is refreshing, therefore, to place on record the fact that one Corporation at least exists which thinks chemical manufacturers have a right to make themselves a nuisance—in moderation; that is to say, in proportion to the importance of their trade to the community they dwell with, and also in a direct ratio to the nuisance they are subjected to by the endless complaints of those who have nothing else to do but find fault.

The particular Corporation in question is that of Plymouth, at a recent Council meeting of which, the by no means tolerant complaint of a ratepayer was disposed of in a somewhat novel manner.

The exact details of the complaint are given elsewhere in this issue, as is also the way in which the Council disposed of the complaint.

The gentleman said he paid his rates and therefore claimed redress. The cause of the trouble was a bone works. We know they are not savoury, neither would this gentleman's dust-bin be endurable (or those of other burghers in Plymouth) if there was no place for bones to be carted to and disposed of. There are two sides to every question, a fact which the Borough Council of Plymouth doubtless recognised when it decided to let this gentleman's letter of complaint "lie on the table."

It never seems to occur to those who are so quick to claim their rights as ratepayers that the offenders also pay rates and taxes; sometimes to the extent of very large sums. The smell from a works may be very unpleasant, but it is not made intentionally and for the sole object of annoying residents.

Look at the other side of the case. A manufacture engages in an evil smelling business and selects a site for his works on the outskirts of a town. The town expands and builders erect cottage property which gradually extends to the neighbourhood. Knowing the situation, rents are probably somewhat lower than in other parts of the town. People come of their own free will and inclination, settle in the neighbourhood, and then find out its drawback. They have an inner consciousness that they have been "done," but they have no remedy against the landlord or his agent. Meantime

the "nuisance" is there, and someone must be blamed other than the individuals who of their own seeking came into the zone of pestilential smells and what not. They therefore put their heads together, and urge the Sanitary Committee of their Corporation to "suppress the nuisance." It never enters their heads for a moment, it would seem, that the works were there long before they came, and that possibly they collectively are a far greater nuisance to the works, by reason of their ceaseless complaints, than the smells from the works are to them. If you go for a holiday to a seaside resort that does not suit your taste in the matter of accommodation or amusement, you clear out and take care not to go there again. You do not draw up a round robin petitioning for the evils to be suppressed and the ways changed. Who ever heard of a tannery or a leather enamelling works being prosecuted for emiting a smell—and such a "smell" too?

What action is taken against the hundreds of textile warehouses which daily sicken the senses of every pedestrian in the crowded thoroughfares of a city like Manchester, with the stench of indifferent tallow and doubtful sizeings which escapes from every doorway and rises through every grating? In the summer these smells are absolutely revolting, and instead of taking the best practicable means to prevent the nuisance, nothing is done to abate it.

Yet no man in his senses would suggest doing otherwise than putting up with the smell, and holding his nose when he comes to an exceptionally full-flavoured grid.

The same spirit of toleration and common sense is evidently prevalent at Plymouth. Happy Devonians!

PROSECUTION OF CHEMICAL MANUFACTURERS.

The hearing of this case was resumed again on Thursday, last week. Mr. Rowe, sanitary inspector of the Corporation, who gave his evidence at the last hearing, was further cross-examined by Mr. Langdon, the point as to whether he had judged of the alleged nuisances only by the eye and the smell. Witness admitted that he had not measured the size of the settling tanks, had not gauged the rate of the running of the liquid or the volume of the liquid contained in the tanks.

Mr. Langdon: Have you subjected the spent liquid to any tests at all in 1898 or 1899?

Witness: No, I have not.

Continuing his replies, witness said that when liquid was allowed to settle there was bound to be a deposit of sludge, but he had never seen any sludge removed from the tanks.

The prosecution called a witness, who submitted plans of sewers and outfall pipes from the defendants' works, and this closed the case against the defendants.

Mr. Langdon, for the defence, commented upon the fact that the only personal complaint made to Mr. Lockwood was only one letter. The defendants had always been willing to make improvements to prevent any nuisance, and had spent £15,000. upon suggestions leading to that end. Mr. Porter, a Government Inspector, admitted that when he indicated where something might be done the defendants immediately took action, and Dr. Niven, the Medical Officer of Health, and Mr. Rowe, Sanitary Inspector, had acknowledged that every facility was given them to conduct their examinations when they visited the works. The Corporation were bound to take the case, as complaints had been made by ten individuals living in the neighbourhood, but he submitted that they had not, as they ought to have done, proved their allegations. He wished to point out that they were charged with emitting noxious fumes, and not with turning anything into the sewers.

At the conclusion of Mr. Langdon's remarks, which occupied more than an hour, he called residents in the neighbourhood to give evidence as to whether there was any nuisance arising from the works.

A carter named Blackburn said he lived opposite the works and he had not noticed for some years any disagreeable smell in the district. He ate and slept well, and so did his wife and family of five children.

Mr. Rhodes: Can you smell?

Witness: Yes.

Mr. Rhodes (handing up a small bottle containing a colourless liquid): Can you smell that?

Witness (taking the cork out and sniffing the liquid): There's scarcely any smell in it.

Mr. Rhodes (to the bench): That is pure sulphuretted hydrogen (Laughter.)

Mr. Langdon: I do not know that it is, and the bench ought to be satisfied that it is sulphuretted hydrogen.

Mr. Rhodes invited the bench to satisfy itself, and passed the bottle up. Mr. Headlam quickly withdrew the cork but he very much more quickly withdrew the bottle from his nose, the strength of the maladorous liquor making him blink for a few seconds.

Mrs. Scott was the next witness, and she readily endorsed the statements of the previous witness. She spoke blithely of the district of the works as if it were a health resort, and when Mr. Langdon asked her whether her family enjoyed as good health as she seemed to do she replied, "They're all as hearty as their mother." She was subjected to the smelling test, and to the amusement of Mr. Rhodes and others on the side of the prosecution, she was not able to detect anything particularly bad.

Mrs. Sarjent was just as satisfied as the others about her dwelling place. She did not seem to be at all upset by the scent of sulphuretted hydrogen. Mr. Rhodes then tried how one would stand the ordeal of some liquid in another bottle. She treated that a bit more gingerly than the other, and her suspicions seemed to be aroused, but still she would not give in, and she half-smilingly said she did not observe anything particularly bad about it.

Mr. Rhodes: That is pure pyridine. (Laughter.)

Frank Scudder, Fellow of the Institute of Chemists, stated that everything possible had been done at the works to prevent a nuisance.

The decision was reserved.

At the Manchester City Police Court, on Wednesday, this week, before Mr. F. J. Headlam, stipendiary magistrate, Mr. Miller, solicitor to the Corporation, made application for an order to compel Messrs. Hamor Lockwood and Co., chemical manufacturers, Philips Park-road, to admit Corporation officials to inspect the works. He stated that the Medical Officer of Health (Dr. Niven), and one of the inspectors (Mr. R. M. Rowe), on Monday, noticed an offensive smell when they were close to the works, but when they asked to be admitted they were refused.

Mr. Langdon, on behalf of Messrs. Hamor Lockwood and Co., said there was already a summons against his clients, which would be heard next Tuesday, and the officials simply wanted to get into the works to strengthen their case. Messrs. Hamor Lockwood and Co. were willing to have an inspection of the works providing that nothing further was used against the firm next Tuesday.

Mr. Miller held that that point might be discussed next Tuesday.

Mr. Headlam said he was compelled to make the order, but he thought that any fresh evidence which might be obtained through it ought not to be submitted.

The order was then made and Mr. Miller undertook, at the suggestion of Mr. Headlam, to give twenty-four hours' notice of the visit.

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for August, 1899, as compared with August, 1898:—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	21,534	12,522	6,975	4,309
Sweden and Norway	6,884	9,582	1,826	2,494
Germany	9,951	8,847	2,402	3,374
Holland	6,977	7,712	1,488	1,766
France	4,657	4,415	1,721	1,415
Spain and Canaries	26,908	32,003	8,702	10,198
Italy	19,083	29,689	5,930	8,661
United States	47,804	49,891	10,272	9,863
Australasia	21,134	23,219	6,423	6,991
British North America	10,716	12,852	3,139	2,850
Other countries	95,597	121,354	28,629	33,716
Total	271,245	312,086	77,507	85,637

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	48,123	68,780	12,132	15,169
Other countries	28,846	35,342	8,241	10,023
Total	76,969	104,122	20,373	25,192

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Producing Plastic Calcium Carbide. C. E. L. Mengelberg. 19,257. September 25.

Purifying Water Gas. A. J. Boult. 19,270. September 25.

An Improved Illuminating Gas and Apparatus for the Production thereof. J. Lewis, C. Leeson, and T. Garner. 19,317. September 26.

Creating Large Gasifying Surfaces in Small Gasifying Vessels for the Production of Combustible Gases. M. G. W. Reye. 19,352. Sept. 26.

Apparatus for Starting Crystallisation. I. Timar. 19,353. September 26.

Apparatus for Impregnating Long Pieces of Wood. G. F. Lebioda. 19,362. September 26.

Purifying Water. J. O. Krohnke. 19,379. September 26.

Method and Apparatus for the Treatment of Sewage and like Liquids. E. W. Ives. 19,411. September 27

Apparatus for Holding and Distributing Paint. T. E. Heath. 19,427. September 27.

Stoppering Carboys and the like. H. J. Gardiner. 19,437. September 27.

Substitute for Gutta-percha for Coating Cables and for other Purposes. H. Schneider. 19,464 September 27.

Treatment of Sulphurous Ores containing Arsenic, Antimony, or Tellurium. E. Petersson. 19,466. September 27.

Drying Brewers' Refuse and other Materials R. Cunliffe and H Forshaw. 19,518. September 28.

Manufacture of Saccharine. H. H. Lake. 19,679. September 29.

An Improved Charcoal Kiln. F. Brand. 19,782 September 30.

Calcining, Roasting, or Drying Furnace. C. T. Hennig. 19,684. Sept. 30.

Manufacture of Methane Gas or of Gas Mixtures chiefly containing Methane. C. Wulffing. 19,687. September 30.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements Relating to the Electrolytic Decomposition of Alkaline Salts. E. Edser, 34, Mexfield-road, Putney, S.E. Eng. Pat. 18,958. September 5, 1898.

This invention relates to an improved form of electrolytic cell in which the partition is composed of a series of S-shaped troughs, so disposed as to contain a quantity of mercury which seals the interstices between the troughs, and so effectually prevents the mixture of the liquids in the respective compartments. At the same time the mercury affords an electrical communication through the compartments. When in operation an amalgam is formed on one side of the partition, while on the other caustic soda is produced, the amalgam being decomposed by water. There are no less than 22 separate figures illustrating the details of the cell.

Improvements in the Electrolysis or Electrical Treatment of Gases and Gaseous Mixtures or Compounds. R. J. Yarnold, 64, Upper Tulse Hill. Eng. Pat. 2,629. February 6, 1899.

The gases to be treated are caused to pass in thin layers through the small annular spaces formed by a number of circular glass or mica dielectrics which are arranged concentrically, and which are isolated from each other. In this way, it is claimed, induction discharges of high potential are produced, in a manner which ensures a more uniform action upon the gases under treatment. There is one figure.

Improvements in the Treatment of Spent Beetroot and Production of a Useful Body therefrom. E. B. Ellis, of Messrs. Mewburn and Ellis, 55 and 56, Chancery Lane, W.C. (communicated by F. Hornig, Taucha, near Leipzig, Saxony). Eng. Pat. 22,788. Oct. 29, 1898.

A gum, resembling gum arabic, but, nevertheless, having many distinctive features, is obtained by treating the waste beetroots in the following manner:—The beetroot chips are first dried, so as to contain about 12 per cent. of moisture. They are then heated with a solution of sulphurous acid in a lead-lined digester, at a temperature of 85° C., for four to five hours. The resulting pulpy mass is cooled and lixiviated with water. The successive lyes so obtained are mixed and neutralised with chalk, after which the glutinous liquid is concentrated *in vacuo*. If alkali or ammonia is added to a solution of this gum in water the whole mass agglutinises; a solution of gum arabic does not do so. This gum also has a pleasant odour, traceable to the vanillin in the beetroots.

Improvements in and Relating to the Manufacture of Borax. Dr. C. Bigot, Billwärder 98B, Hamburg. Eng. Pat. 862. January 13, 1899.

A mixture of boracic acid, ammonia and sodium nitrate is prepared according to the proportions required by the following equation:—

$$2\,B_2O_3 + 2\,NH_3 + 2\,NaNO_3 + H_2O = Na_2B_4O_7 + 2\,(NH_4)\,NO_3$$

Just sufficient water to dissolve the mixture is added. When the reaction is complete the solution contains ammonium nitrate, which is very soluble, while the slightly soluble borate of sodium (borax) is precipitated. The latter is removed by a centrifugal. The solution of ammonium nitrate is evaporated, and the crystals deposited can be readily purified by re-crystallisation. In this way the use of sodium carbonate is avoided.

Improvements in the Production of Small Masses of Calcium Carbide. C. Wehner and M. Kandler, both of Thomasmühle, Leipzig. Eng. Pat. 7,160. April 5, 1899.

The carbide is broken into small pieces and heated in a rotating drum with sugar or caramel. The sticky mass which results is poured, while still hot, into moulds. The bricks or nuggets so obtained are finally coated with paraffin wax.

MORE ABOUT ARSENIC IN DEVON.

THE production and price of arsenic was much discussed at the ordinary general meeting of the directors and shareholders of the Devon Garvton Company at Garvton mine, Tavistock, on Wednesday. Mr. Peter Watson, the chairman, said a contract for arsenic for the present year had been made at an advanced price, and the outlook for the disposal of this commodity was favourable. America now took a considerably larger quantity. They had the satisfaction of knowing that the product of the mine was very good. There was no better arsenic made in this country, for the arsenic from Garvton ranked "A1" in the market. They had been going on for five years and had got nothing on their capital. This was very disappointing, but now, with their machinery in first-class order (as had been testified by the Government inspector), they wanted to see some results. Mr. Barvdon said they had turned the corner in Garvton, and given the price of arsenic as it now ruled, he did not see why they should not make satisfactory profits. Captain Rowe said they had a larger section of ground to take up, and they had a mine which they could look forward to for years to come to yield good returns if the price of arsenic kept up.

IMPORTS AND EXPORTS FOR SEPTEMBER.

THE Board of Trade returns for the past month are altogether more satisfactory. The *imports* of sodium nitrate, tallow, paraffin, and tar are higher, while petroleum, turps, and phosphate of lime are lower. The *exports* of alkali and bleach show an advance, but chemical manures and salt have declined.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE.

Articles.	Quantities. 1898	1899.
Margarine ..... Cwt.	72,376	85,537
Copper Ore and Regulus..... Tons	23,285	26,945
Pyrites..... ,,	39,293	45,887
Tin ..... Cwt.	12,968	39,698
Alkali ..... ,,	19,363	24,697
Brimstone ..... ,,	17,530	49,608
Dyes, coal tar ..... £.	63,209	61,132
Saltpetre ..... Cwt.	13,460	12,979
Petroleum ..... Gall.	23,375,283	18,767,646
Turpentine ..... Cwt.	112,960	52,221
Guano ..... Tons.	1,774	2,045
Nitrate of Soda ..... ,,	4,407	19,594
Paraffin Wax..... Cwt.	50,602	100,081
Rosin ..... ,,	226,126	166,580
Tallow and Stearine..... ,,	111,445	147,847
Tar..... Barrels	27,440	38,736
Oil Seed Cake ..... Tons	25,284	23,587
Wood Pulp..... ,,	34,731	31,406
Borax ..... Cwt.	137	10,116

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

Articles.	Quantities. 1898.	1899.
Alkali ..... Cwt.	309,733	351,593
Cement ..... Tons.	26,734	30,874
Coal and Coke ..... ,,	3,506,218	3,763,206
Copper, all kinds ..... Cwt.	82,102	104,699
Iron and Steel ..... Tons.	269,631	336,684
Chemical Manures ..... ,,	54,108	33,408
Oils, seed ..... ,,	2,817	2,674
Salt ..... ,,	75,000	69,982

LONDON INDIGO SALES.

THE last quarterly sale of the year commenced on Monday with a declaration of 3,900 chests, of which 850 have been withdrawn and not printed, leaving 3,050 chests to be brought forward. These may be classified and compared with the corresponding sale last year, as follows :—

	1899		1898.
Bengal	1,656 chests		3,543 chests
Oude	429 ,,		901 ,,
Bimlipatam	225 ,,		22 ,,
Kurpah	355 ,,		1,104 ,,
Madras and Vellore..	146 ,,		142 ,,
Figs and Hoody	195 ,,		353 ,,
Musters, etc	44 ,,		35 ,,
Total	3,050 chests		6,100 chests.

Messrs. Millward and Co., of Manchester, state that the total quantity offering is very much smaller than usual, and is less than half of the recent average for the October auctions. The deficiency is chiefly in Kurpah and low-priced goods, there being a decided scarcity of qualities valued below 2s. 6d. per lb. The selection of Bengal is a good one, and Oudes and Bimlipatam present a fair assortment. Kurpah, a description so highly appreciated by many home trade buyers, is, unfortunately, represented by about the shortest supply ever offered in these sales, but the few lots available include some coloury and desirable parcels. The dry leaf Madras consists of low to good middling, whilst the few parcels of Figs and Hoody are of about average quality.

Almost immediately after the July sales unfavourable crop reports were cabled from Calcutta, and the estimates, which, at first, predicted an average crop of about 130,000 maunds, were reduced stage by stage until it became evident that the out-turn would be one of the shortest for many years past. The chief cause for this most serious falling off has been the excessive rainfall in the principal indigo-growing districts, especially in Behar, and many planters must have had a further disastrous experience. As soon as it was realised that a small crop was inevitable the market became very active, and continental buyers began to operate freely, although the home trade made no general response, still holding fairly large stocks. During the past few weeks more general interest has been displayed, and, altogether, a very large quantity of indigo has been disposed of. Prices have steadily advanced until brokers have reported business in Bengal and Oude at 6d. to 8d. upon July rates, and in Kurpah at 5d. to 6d. Some holders have been unwilling to sell even at these figures, and expect still further improvement. As the world's consumption of indigo is now again increasing, and present stocks and prospective supplies diminishing, it is quite possible that these sanguine anticipations will be justified.

The Calcutta estimates for the new crop have been finally fixed at 85,000 maunds, or nearly 50,000 maunds below the recent average. It is expected that a fair assortment of new crop Oudes will be available for sale by the end of the present month, but the season generally will, probably, be a late one.

Madras reports indicate another small yield, with every likelihood of Japan and Suez again taking almost the whole supply. Shipments of Kurpah and dry-leaf during September are given as 50 chests to London, 1,600 chests to Suez, and 1,000 chests to Japan.

Advices from Java report that the area sown with indigo has this year been reduced by 40 per cent. owing to unremunerative prices, whilst the stocks in Holland are almost *nil*.

DELIVERIES.

1st January to September 30th.

1899.	1898.	1897.
9,541 chests.	11,413 chests.	10,861 chests.

LONDON STOCKS.

Oct. 2nd.

1899.	1898.	1897.
10,405 chests.	14,663 chests.	18,964 chests.

The sale opened with a fair attendance of home and continental buyers and proceeded rapidly, many holders placing very high limits upon their goods, to which they strictly adhered. Any lots that were at all moderate met with ready purchasers, and the market may be reported as the strongest for some years past. Quotations are :— Bengal, Bimlipatam, and Oude, 6d. to 8d. advance ; Kurpah, 4. to 6d. advance ; Madras, 3d. to 4d. advance ; Figs, none sold.

Sold—428 chests under the hammer and 560 privately, making 988 sold in all ; bought in and withdrawn, 2,012 chests ; passed, 3,000 chests ; leaving 900 chests still to pass the sales. For particulars of sale see *C.T.J.*, No. 634, page 34.

Reports of Companies.

COMMERCIAL DEVELOPMENT CORPORATION, LTD.

At the second ordinary general meeting of shareholders, held yesterday in Liverpool, the following report of the directors was submitted :— "The Directors have pleasure in submitting to the shareholders the second annual report and balance sheet, and in congratulating them upon the success of the company. (See balance sheet, page 243.)

The litigation in Respect of the English patent* is still *sub judice*. The judgment in this company's favour of the Court of Appeal as to the validity of the patent, and the subsequent appeal to the House of Lords on the question of costs, which was also decided in this company's favour, justifies the directors in anticipating that the judgment of the Court of Appeal will be upheld.

The Company is negotiating for the sale of a number of its colonial and foreign patents.

A large number of businesses have been offered to the company during the past year, which your directors have not thought it prudent to take up. The Board, however, is in a position to undertake any satisfactory business which presents itself.

The company has sold certain of its foreign rights for a sum which enables the Directors to write off the loss on the first year's working, the whole of the law costs incurred by the company in upholding its patent, the balance of preliminary expenses, reduce the cost of the work's account to less than its realisable value, and leave a balance available for dividend of £85,435. 4s. 8d., which the Directors propose should be distributed as follows :—

Dividend on Ordinary Shares at the rate of 20% for the year	£16,491	16	0
Dividend on Deferred Shares at the rate of 82½% for the year	8,250	0	0
Amount to be carried to Reserve Fund	20,000	0	0
Leaving a Balance to be carried forward to next year's account	40,693	8	8
	£85,435	4	8

The company has a contingent liability of 400,000 dols. terminating in May next, which liability, although extremely remote, the Directors have thought best to allude to in the balance sheet.

It has not been considered necessary to depreciate the Patent Account in view of the facts that a large sum has been carried to reserve, and that the company's holding in the American Alkali Co. has not been brought into account. The shareholders will concur in the Directors' opinion that these reserves amply cover all their patent property. The Directors have filled the vacancy on the Board caused by the retirement of Mr. Joseph Bibby, by the election of Mr. David L. Chalmers, of the firm of Messrs. Chalmers, Wade & Co., chartered accountants, Liverpool."

Under the provisions of the Articles of Association, Mr. Samuel Brighouse retires, but offers himself for re-election.

The auditors, Messrs. Harmood Banner and Son, whose report was read at the meeting, retire, but being eligible, offer themselves for re-election.

EUROPEAN PETROLEUM CO., LTD.

The report of the directors for the year ended June 30th last states that the gross profits for the twelve months, after charging working expenses, have amounted to £172,711., as compared with £92,724. for the previous thirteen months, an increase of £79,987. The net profits for the year, after charging maintenance, interest on loans, and setting aside £25,000. to be added to the depreciation account, amount to £54,604. With the sum of £3,146. brought forward from last year, the divisible profits amount to £57,750. Out of the above sum the directors recommend the payment of the following dividends :—6 per cent. on the preference shares for thirteen months to June 30th, thus making the date coincide with that of this balance-sheet, and 8 per cent. on the ordinary shares, leaving a balance of £28,250., from which it is proposed to write off from preliminary and transfer expenses £5,000., to place to reserve account £20,000., and to carry forward £3,250. The directors have during the year incurred an expenditure of £64,479. in sinking new wells and providing additional plant and machinery on the oilfields. This outlay should increase the revenue during the present year. The funds have been provided mainly out of profits, so that the directors are unable to advise any distribution of dividend to the deferred shareholders at present. The directors are glad to be able to state that the licence to the company to hold and work oil properties in the Caucasus has been granted by the Imperial Government of Russia. This confers upon the company a complete legal status in that country.

*Rhodin's. See this Journal, vols. xxi., pp. 131, 273, 309, 310 ; xxiii., pp. 40, 53, 84.

THE COMMERCIAL DEVELOPMENT CORPORATION, LTD.

Dr. REVENUE ACCOUNT FROM 1st OCT., 1898, TO 30th SEPT., 1899. Cr.

1899. Sept. 30.	£. s. d.	£. s. d.
To Loss on Previous Year's Trading, Sep. 30, 1898		6566 10 6
„ Salaries and Wages	3089 9 0	
„ Travelling Expenses	586 6 6	
„ Legal Expenses and Patent Fees	4279 11 4	
„ Office Expenses, including Rent, Rates, Stationery, Postages, Telegrams, Telephone, Advertising, Lighting, &c. ..	577 13 8	
„ Directors' Fees	231 0 0	
„ Interest and Commissions	1902 2 10	
„ Audit Fee	31 10 0	
		10697 13 4
„ Amounts Written off Clifton Junction Development Account	3534 18 9	
„ Furniture and Fixtures	193 8 1	
„ Preliminary Expenses	568 0 0	
„ Experts' Fees	1200 9 3	
„ Brokers' Fees	610 0 0	
		6106 16 1
		23370 19 11
„ Balance, being nett profit for the year ..		85435 4 8
		£108806 4 7

1899. Sept. 30.	£. s. d	£. s. d.
By Nett Cash Proceeds on Sale of American and Canadian Patents	108652 7 7	
„ Dividends from Investments ..	130 10 0	
„ Transfer Fees	23 7 0	
		108806 4 7
		£108806 4 7

Dr. BALANCE SHEET.—30th SEPTEMBER, 1899. Cr.

Liabilities.	£. s. d.	£. s. d.
To Capital—*Authorised*:		
190,000 Ordinary Shares at £1.	190000 0 0	
10,000 Deferred „ at £1.	10000 0 0	
	200000 0 0	
Subscribed:		
82,458 Ordinary Shares of £1. each, fully paid	82458 0 0	
10,000 Deferred Shares of £1. each, fully paid	10000 0 0	
		92458 0 0
Sundry Creditors		318 5 9
		92776 5 9
Nett Profit for the Year	85435 4 8	
To be apportioned as follows:—		
20 per cent. on £82,458. Ordinary Share Capital	16491 16 0	
8½ per cent. on £10,000. Deferred Share Capital	8250 0 0	
	24741 16 0	
Reserve Fund	20000 0 0	
Balance Carried Forward	40693 8 8	
		85435 4 8
Contingent Liability on Drafts of the Company	80000 0 0	
		£178211 10 5

Assets	£. s. d.	£. s. d.
By Patents		91100 0 0
„ Clifton Junction Works, Development Account		3500 0 0
„ Office Furniture		570 0 0
„ Sundry Debtors		372 18 1
„ Cash in Hand		117 10 7
„ Cash at Bank	1264 19 5	
„ Cash at Bank on Deposit ..	26000 0 0	
		27264 19 5
„ Securities at Cost (present value £4,637. 10s. 0d.)		4579 9 6
„ Bills Receivable		50706 12 10
		£178211 10 5

Note.—The Corporation holds 90,000 Shares of 50 dols. each of the common stock of the American Alkali Co., fully paid and non-assessable.

RIO TINTO CO., LTD.

In an interim report upon the company's operations during the current year, the directors state:—"The demand for pyrites has been on an increasing scale, and the deliveries in the United Kingdom, the Continent of Europe, and the United States have been greater than at any time in the past. The refined copper turned out at Cwmavon has been satisfactory in quality, and has met a good demand; but the quantity produced has not up to the present time been so great as for the same period of last year. There has been a further rise in the value of the metal since the annual report was issued in April last, full advantage of which has been taken, and the market continues fairly steady at almost the highest figure reached, and gives promise of results for 1899 considerably in excess of those of 1898. The directors have now the pleasure to declare out of the estimated profits of the year a dividend for the six months ended June 30th last of 2s 6d. per share, less income tax, on the five per cent. preference shares, and an interim dividend of 35s. per share, free of income tax, on the ordinary shares, both payable on November 1st next."

DIVIDENDS, &c.

Salar del Carmen Nitrate.—The directors have declared an interim dividend of 2s. 6d. per share, free of income tax, payable on 16th inst., on account of profits for the current year.

San Jorge Nitrate.—The following cablegram has been received by the company from Iquique:—"Selling arrangements confirmed; practically all joined. Total available during month of October, 350,000 quintals; November, 400,000 quintals; December, 950,000 quintals."

ROCK-SALT IN LOUISIANA.

UP to the present time five deposits of rock-salt have been discovered in Louisiana, occupying a series of so-called "islands," situated in a north-west and south-east line on the gulf coast. Beginning on the N. W., they are:

1. Jefferson Island, about 300 acres in extent (though more than 8,000 acres of surrounding land belong to the property).

2. Petite Anse (1,600 acres), 6 miles in an air-line south-east of Jefferson.

3. Grade Cote (about 3,000 acres), 7 miles south-east from Petite Anse.

4. Cote Blanche (about 2,000 acres), 10 miles south-east from Grand Cote. (No explorations have been made on this island.)

5. Belle Isle (800 acres, with highland and marsh pastures making an aggregate area of about 3,000 acres), 50 miles from Cote Blanche. This island is bounded by Atchafalaya Bay and two large tributaries thereof, known as Was and Doctor bayous. It is really the only one of the list which can be seriously considered as an island. The others are divided from the marshy mainland by bayous only a few feet wide, and spanned by bridges of insignificant length, access to which is given by low embankments through the marsh. Yet the term "islands" is justified for all of them by the circumstance that they rise from 80 to 250 ft. above the surrounding marshes, which are nearly at tide-level.

The depth at which salt is reached varies in the different deposits. At Petite Anse it seems to be smaller than elsewhere. On Jefferson Island it varies from 90 to 145 ft.; and similar variations are shown at Grand Cote and Belle Isle.

It can scarcely be doubted that, at an unknown depth, this group of deposits is connected with a continuous stratum of salt, which may possibly extend as far as Saline, in the north-western part of Texas, where brine is pumped and some evaporating plants are located.

The mines are operated by the chamber-and-pillar system, and the salt is excavated by undercutting. When the shaft has reached a depth of, say, 250 ft. or more below the apex of the deposit, stations are opened, and an undercut 7 ft. high, with a face of 75 ft., is commenced. When this has advanced, say, 200 or 300 ft., the roof is attacked and blasted down to the height of about 20 ft. After the removal of the salt thus won, there remains a chamber, say, 75 ft. wide by 200 ft. long and 20 ft. high, in which the roof is again broken down to the final height of 70 ft. in the centre and 60 ft. at the pillars on either side, leaving a natural arch of rock-salt, which has proved capable of resisting any overlying weight, as well as preventing leakage of surface waters.

This final excavation is performed with the aid of tripods, made of short ladders, upon which a temporary scaffold is erected for men and machines. A battery of holes, 10 ft. deep, is drilled near the brow of the chamber and along its whole face, and charged with low explosives. The ladders and machines are then removed, and the salt is blasted down. On the pile of this material new scaffolding is erected; and the operation of drilling and blasting is repeated, until the desired height of roof is reached. Loose blocks or chips are carefully removed from the final roof, so as to leave a safety solid mass; and the chamber is then abandoned. Every such chamber, 200 ft. long by 75 ft. wide and 65 ft. in average height, yields about 50,000 tons of salt, mined without the use of a single stick of timbering. Pillars 60 ft. square are left between chambers. Whenever a given level shall have been worked out on this plan, it will only be necessary to sink the shaft another hundred feet and repeat the operations described. It need scarcely be said that these great vaulted chambers, with their piers and arches of pure crystalline salt, present, especially when scintillating under the strong illumination of a calcium or electric light, a most impressive appearance, not paralleled by underground views in ordinary mines.

The first undercut of salt is well shattered by blasting, and goes to the mill to be ground fine. The first and second roof-blasting furnish pieces of solid rock, which is set aside under sheds, to be aerated or weathered before being shipped for cattle purposes. All finer stuff is "grist;" and as, by reason of the uniform purity of the salt, no sorting or purification is required, every pound of salt mined is a pound sold. In a properly conducted mine two chambers should be always worked simultaneously, since one undercut alone would not supply the coarser grades. While one chamber is being undercut, the other, with its roof partly down, equalises the proportions of the different sizes required for steady operations.

It is not necessary to describe the crushing and sizing of the product. It is all equally pure and is subjected only to such operations as will recommend it to the various branches of trade. The coarsest crushed salt is used principally by beef and pork packers; the second and third sizes are largely employed in salting hides, in refrigerating, etc.; and there are four grades of still higher fineness, produced by grinding with emery-wheels, screening and blowing, which have their several uses—the finest being table-salt.

Two companies are now engaged in erecting plants for the mining and marketing of salt. One of these is the Gulf Company, operating on Belle Isle, and composed of capitalists in Chicago and the Northwest. Its plant is well advanced, and, having been executed with the aid of ample means, embodies, both above and underground, the best arrangements and devices that can be adopted by a skilful and far-sighted management for the production and handling of a large tonnage. A spacious canal has been cut, through which large steamboats can come directly to the great warehouse, so that steamers and barges can be mechanically loaded As the main shaft is only 500 ft. from the warehouse, the facilities for cheaply handling a large output are evidently complete. The shaft, which has three compartments, is now 400 ft. deep, or 305 ft. in solid and pure rock Salt; and the hoisting-machinery is of adequately large capacity. The mill is nearly finished, as is likewise a large evaporating plant, to be used to enable the company (aided by its proximity to New Orleans) to compete with imported evaporated salt. The plant comprises also a barrel factory, saw-mill, large electic plant, barges, and a number of steamboats, one of which is larger than any on the Mississippi.

The other company referred to is erecting a large new plant on Petite Anse. The Avery Salt Mining Company, formed in July, 1898, by the owners of the island, upon the surrender of the lease held by the last operators, Messrs. Myles & Co., has been absorbed by the Retsof Company of New York, which is now operating this interesting property, retaining the name of the Avery Company.

Messrs. Myles & Co, after surrendering, in July, 1898, their lease on Petite Anse, organised the Myles Salt Company, to operate upon Grand Cote Island, where they had already begun in April, 1898, the sinking of a shaft. This operation has been hindered by the occurrence of quicksand just above the salt, which has thus far prevented the establishment of the tight seal between the shaft and the salt-rocke required to prevent the entrance of surface-waters.

Jefferson Island is not under active development; Mr. Jefferson has decided to leave the property, for the present, as it is—*Engineering and Mining Journal.*

The Manchester Corporation Cleansing Department.—The annual report of the Cleansing Committee, giving detailed statements of the accounts of the department and other information in the form of statistical tables in relation to the cleansing of the city, has been issued. The net cost of the department has been £124,739. 9s. The net expenditure in the Scavenging Department (which includes the collecting of dust from warehouses, the watering of streets, cleansing of courts, passages, &c., and sweeping the streets and markets), was £44,527. 13s. 1d., which is equivalent to a rate of 3 2-5d. in the pound. The net expenditure in the Nightsoil Department (which also includes the collection and disposal of refuse from the slaughter-houses) was £83,535. 6s. 6d., which is equal to a rate of 6 4-9d. in the pound. During the year 343,702 tons of material have been collected, of which quantity 42,364 tons have been sent to the Carrington estate, 10,780 tons to the Chat Moss estate, 104,481 tons rubbish to tips, 51,964 tons to farmers, and 105,182 tons are accounted for by leakage, evaporations, and burning. There has been manufactured 15,450 tons of mortar, 5,022 tons concentrated manure, two tons soap, and 150 tons of grease extracted from refuse.

MANCHESTER SEWAGE SCHEME.

L. G. B. PROPOSALS.

A SPECIAL meeting of the Manchester Rivers Committee was held on Monday for the purpose of receiving and considering the following report:—

Local Government Board, Whitehall, S.W.,
4th October, 1899.

Sir,—I am directed by the Local Government Board to state that they have received the report of their inspectors, General Crozier and Dr. Thomson, after the inquiry held by them with reference to the proposals of the Town Council of Manchester for the treatment and disposal of the sewage of the city.

The Board having carefully considered their inspectors' report, together with the evidence submitted at the inquiry, are willing, provided the details of the scheme and the arrangements for supervision are satisfactory, to sanction a loan in respect of a scheme for double filtration in bacterial filter beds on the system proposed, subject to the following requirements:—

1. That an area of not less than ninety-two (92) acres of filter beds shall be provided for the treatment of sewage by double contact.
2. That these filter beds shall be worked in cycles of not less than eight (8) hours.
3. That provision shall be made on the land at Carrington and Flixton, which is scheduled in the provisional order of 1898 for the treatment of the storm water sewage not dealt with by the bacterial beds up to six times the volume of the dry-weather flow, by the construction of special storm filters sufficient in extent to admit of a rate of filtration not exceeding 500 gallons per square yard per diem. And
4. That the land at Carrington and Flixton not devoted to the above purpose shall be utilised, in so far as levels permit, for the treatment of the filtered effluent, in accordance with the resolution passed by the Town Council on the 20th April, 1898.

The scheme should be fully illustrated by detailed plans and sections of the intended works, and should be accompanied by full particulars as to the nature of the supervision proposed to be exercised when the works are in operation, a detailed estimate of the cost of the scheme (including the cost of the land at Carrington and Flixton), and a copy of the resolution of the Town Council directing application to be made for sanction to the required loan. Suitable estimate forms are enclosed.—I am, sir, yours

NOEL T. KERSHAW, Assistant Secretary.

The resolution referred to in the preceding report is as follows:—"That having regard to the very large sums of money which have been obtained from time to time, with the consent of the Local Government Board, for the construction of large and important works, and the fact that such works will inevitably in the future have to be enlarged and additional powers obtained, and also looking at the good understanding which has hitherto obtained between the Local Government Board and this Corporation, it is undesirable, if possible, that that good understanding and harmonious feeling should be disturbed, and the Council therefore recommend the Rivers Committee to conform to the requirements of the Local Government Board by the purchase of the necessary land for the aeration of the effluent after it has passed through the bacterial filter beds."

It may be remembered that this resolution was in the first instance proposed by Sir John Harwood as an amendment to the plans of the then Rivers Committee. These were to the effect that instead of applying to the Local Government Board for borrowing powers, the Council should proceed under the powers confirmed upon them by the 235th section of the Public Health Act. Had this latter course been followed, the sanction of the Local Government Board to the scheme of the Rivers Committee would not have been necessary, and the restrictions imposed by the report presented on Monday would have been avoided.

At the proceedings before Mr. Yates at the County Police Court, Strangeways, on the 30th of May last, the Lord Mayor gave a pledge that a special meeting of the Council should be summoned directly the report of the Local Government Board was received.

In accordance with this promise a special meeting of the Council will be called at an early date.

The members of the Rivers Committee received the report of the Local Government Board with considerable dissatisfaction. They recognise the fact that in some respects its requirements are not so stringent as they had been led to anticipate, but on the whole it makes demands which they are not at the present moment willing to accede to. The report of the experts appointed some time ago by the Council, is expected in the course of a few days, and it is believed that their report will prove beyond all doubt that the requirements of the Local Government Board are unreasonable. This particularly applies to the provision of land at Flixton and Carrington, and the limitation of the bacterial treatment to three cycles per day. Present experiments show that sewage may be passed through a bacteria bed four times per diem with satisfactory results.

It is as yet too early to indicate the course which will be followed by the Rivers Committee. They are waiting for the report of the Council's experts. So far as could be gleaned, it is evident that the Committee are prepared to follow the opinion of experts and oppose the demands of the Local Government Board. As a last resort they will revive their proposals for proceeding under the section of the Public Healt Act referred to above.

Trade Notes.

A. G. FÜR TREBERTROCKNUNG IN CASSEL.—Owing to the interest attaching to the proceedings of this company as evinced by the number of letters we have received in connection with the items we have already published (see this Journal, Nos. 641 and 643), we have arranged for the publication of a full translation of the proceedings of the eleventh ordinary meeting of shareholders at the Hotel König von Preussen, Cassel, on the 28th of August last, together with the balance sheet and profit and loss accounts for the twelve months ending March 31st, 1899. This will appear in the earliest issue possible.

DEPRESSION IN THE SALT TRADE.—Official returns of the salt shipments from all parts of the United Kingdom were issued this week. They disclose a depression during September represented by 16,000 tons less than the corresponding month. The total quantity of salt dealt with was 79,500 tons. Liverpool suffered to the extent of 10,000 tons, Runcorn and Manchester Ship Canal 3,000 tons, Middlesbrough 1,200 tons, and Fleetwood 4,000 tons. This year has so far fallen below 1898 by 13,000 tons.

EXPLOSION OF ACETYLENE GAS.—A fatal acetylene gas explosion is reported from Tutbury, Burton-on-Trent. On Saturday night Mr. Alexander, manager of the Photo Decorated Tile Co, recently visited by the Duchess of York, took home from the works a portion of the acetylene gas apparatus for inspection. A violent explosion was heard, and on people rushing in they found his skull fearfully fractured. He lingered during the night and died in the morning. It is supposed that the explosion was caused by the ash from his cigarette.

RIVER POLLUTION IN CHESHIRE.—Many complaints are heard just now respecting river pollution in Cheshire, serious cases having been brought under the notice of the Bucklow, Macclesfield, and Stockport Rural authorities. An extraordinary state of things is reported in Handforth. Mr. A. Brooke, a large owner of land there, has just lodged a serious complaint. He states that one farmer has lost cattle representing £100. through their drinking from a polluted stream, and complains that the greater part of Handforth drainage runs to one of his farms.

IMPORTANT ALTERATION IN TELEPHONE CHARGES.—The Board of the National Telephone Company have decided, it is announced, to make a new departure in regard to their tariff system, by which a customer may have the option of paying, instead of the present charge (which covers an unlimited service), an annual sum of £3. 10s., with an additional fee of one penny each time he initiates a conversation. The £3 10s. payment will confer the right of being called up. The change is made, it is explained, to meet the requirements of people in a small way of business who need to be on the system for the purpose of being accessible to their customers and others, but who do not otherwise require to make a large use of the service. The change will not apply to London.

MORE COKE OVENS.—Knoxville despatches state that 1,000 new coke ovens will be constructed at once by the Virginia Iron, Coal and Coke Co., of Bristol, Tenn. Contracts are being let for the building of 500 at Looney Creek mines, near Cumberland Gap; for 500 at Toms Creek mines, in Wise County, and for 300 at Coeburn, Va. About 500 ovens are now in operation at these points. The output will be used in the 14 furnaces controlled by the Virginia company in East Tennessee and Southwest Virginia. It is reported that a new battery of coke ovens is about to be established at Stiring, Lorraine, by Messrs. De] Wendel and Co. According to the report of the Société d'Alexeievka (Donetz), work has lately been commenced in the construction of 100 new Coppée coke ovens and two large coal washing plants. When the new ovens are completed the company will be able to produce from 24 to 25 million poods of coke per year. The annual output of coal from the pits is estimated at 50 million poods.

Bradford Dyers' Association.—At a recent meeting the board of the Bradford Dyers' Association confirmed the arrangements for the amalgamation with the association of the business of the Standish Co., Ltd., Worthington, near Wigan.

Fire in a Grease Factory.—Owing to the upsetting of a naphtha lamp a serious outbreak of fire recently occurred in the grease extracting works of Messrs. John Poynton and Son at Greenock. Three women workers were so seriously burned that they had to be conveyed to the Infirmary, and several workmen had narrow escapes. The damage is estimated at a thousand pounds

Commercial Intelligence Department —The Commissioner of the Board to South America, Mr. Thomas Worthington, one of whose collections of samples is now being exhibited by the Liverpool Chamber, has been appointed to the position of principal of the new department. He will be assisted by Mr. F. Barley, for many years clerk in charge of the *Board of Trade Journal*, and by other staff officers. The temporary offices of the new branch will be at 50, Parliament-street, London, where special arrangements have been made for the reception of personal applications for tariff and trade information. Work will be commenced at the Commercial Intelligence Department on Monday, the 23rd inst.

The Russian Oil Industry.—In view of the large and material interests which so many Englishmen now possess in the petroleum industry of the Caucasus, it may be of advantage to state that, according to advices from that country, the first oil pipe line in Russia is about to be opened along the Trans-Caucasus railway route between Michailovo and Batoum. There is even talk of laying one down right up to Moscow and St. Petersburg; but this is, of course, the plan of some enterprising foreigner, probably an American, and its boldness is somewhat alarming to the Russians It is reported that the Minister of Finance sees fit to allow the return of the excise duty on Russian petroleum entering Afghanistan through the Custom-houses nearest to the railway in the Trans-Caspian.

The Chemical Trade and Public Nuisances.—Further interference with the chemical manufacturers of Plymouth has been reproved by the public authorities. At a meeting of the Borough Council on Monday week the Town Clerk read the following letter addressed to the Mayor :—"I appeal to you, as Mayor of Plymouth, to direct that this terrible annoyance of the stench from the bone factory on North Quay be stopped once for all. I understand that the Town Council says we can take legal action ourselves if we like, but why should we be put to such expense and annoyance? We pay our rates, and surely we deserve some attention. I have appealed to the Sanitary Authority and to the Local Government Board, and yet can get no redress. I only ask for justice, and trust to you to see we get it. E. W. Hawker."—The Town Clerk stated he had received a copy of the letter sent by Mr. Hawker to the Local Government Board, to which he had replied that the evidence was not sufficient to justify him in taking the proceedings authorised by the Council, and, also, that he had reason to believe that operations had been suspended at the factory in the day time.—Dr. Dutton remarked that the annoyance was equally as great whether the work was carried on by night or day.—Alderman Phillips expressed the opinion that a question such as that contained in the letter ought not to be permitted to be raised. The Council had done everything it possibly could to remedy and remove any possible annoyance, and to pursue it further amounted to persecution. (Hear, hear.)—The letter was allowed to lie on the table.

Market Reports.

TAR AND AMMONIA PRODUCTS.

The position of tar products is firm. Benzols are quoted 9d. for 90's and 10½d. to 11d. for 50/90's. Carbolic acids are strong. Naphthas continue in satisfactory demand. Creosote is firm, and rather scarce, grease oils having a tendency to advance. Pitch is selling well, but there is no quotable change in any of the prices.

Sulphate of ammonia continues depressed. For Nov.-December Beckton is asking £11. 3s. 9d. Nearest prompt values are :—Beckton £11. 2s. 6d., London outside makes £11. 7s. 6d., Hull £11. 5s., and Leith £11. 6s. 3d., to £11. 7s. 6d.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali trade there is continued activity in all departments, and a large amount of business has been done both for prompt and forward delivery. Prices are well maintained for all the products. For bleaching powder the quotation remains at £5. 5s. f.o.r. makers' works, and £5. 10s to £5. 15s. f.o.b. Liverpool for export. Caustic soda is firm, but quotations are unaltered, viz. :—F.o.b. Liverpool, 77%, £9. 5s. ; 74%, £9 ; 70%, £8. 10s. ; 60%, £7. 10s. per ton. Soda crystals and bicarbonate are in the same position. Chlorates of potash, 3½d. per lb. Soda, 3¼d. per lb. For sulphate of copper the price is steady, with an inclination to advance, and business is fairly brisk for spring delivery at £25. 10s f.o.b., ; prompt shipment, £25. 5s. per ton. Sulphur, £4. 10s. per ton. Saltcake rather quieter, but values are maintained at 24s. to 25s. per ton f.o.r. makers' works. Brown acetate of lime is firm, and more business doing at £5. 5s. ex-ship ; grey at £7. 15s. per ton. White sugar of lead dearer at £22 15s. c.i.f. Acetate of soda, £13 15s. per ton, ex-ship. Acetic acid and acetates generally have rather an upward tendency. Prussiate of potash still very firm for spot delivery at 7⅞d. per lb. Soda rather weaker at 5½d. per lb. Cyanide lower, and nominally quoted 1s. per lb. White powdered arsenic in more active request, and price firm at £19. per ton, with higher quotations for forward delivery. For aniline oil salt there is a steady inquiry, but values are unchanged. Sulphate of iron is in fair request, and better prices are obtainable. Alum rather dearer. Potash, caustic and carbonate, are in brisk demand, and prices have further advanced. Ammonia salts steady.

REPORT ON MANURE MATERIAL.

The market continues to display, in all departments, a very quiet aspect, and there is no important business to record.

The Continent is still in the market for high-grade Florida rock, and further business seems likely to result, but U. K. is, for the most part, off the market. There is no change to report in prices for Algerian and South Carolina rocks.

The market for East Indian bone meal has improved, freights having advanced rather sharply, and recent arrivals having been stored. From store £5. 5s. per ton is now asked for fine quality, but probably something less would be accepted for shipment.

Nitrate of soda is hardening, but 7s. 7½d. per cwt. for good, and 7s 9d. per cwt. for fine quality would still be accepted.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron steady: Scotch warrants closed at 69s. 8d. ; Middlesbrough, 68s. 7d. cash ; and hematite, 74s. 7d. Copper easier : Chili bars, G.O B.'s and G.M.B.'s, closed at £76. to £76. 5s. cash ; and £76. 7s. 6d. to £76 12s. 6d. three months. Tin weaker: Straits closed at £145. 5s to £145. 15s. cash ; and £145 7s. 6d. to £147 17s 6d. three months ; Australian, £145. 17s. 6d ; English ingots £148. to £149. Lead steady : Spanish, £16 15s. ; English, £17. Silesian spelter, ordinary, £22. 12s. 6d. Nickel, 1s. 2½d. Antimony, £39. 10s. to £40. Quicksilver : first hands, £8. 17s. 6d. ; second hands, £8. 17s. *Copper Shares* quiet : Cape, 4⅜ to 4½ ; Copiapo, 3⅝ to 3¹³⁄₁₆ ; Libiola, 1⅝ to 1⅞ ; Mason & Barry, 3¾ to 4 ; Rio Tinto, 47⅝ to 47⁷⁄₁₆ ; Tharsis, 7⅛ to 8¼.

GLASGOW, Wednesday.—Market steady, and a good business. Scotch done at 69s. 8d., 69s. 10½d., 69s. 7½d. and 69s. 8d. cash ; also at 70s. 4½d., 70s. 0½d., 70s. 1½d and 70s. month ; buyers, 69s. 8d. cash ; sellers near. Cleveland done at 69s. 1½d. month ; buyers, 68s. 7d. cash ; sellers, 68s. 8d. ; Cumberland hematite done 74s. 9½d., 74s. 10½d., and 74s. 7½d. cash ; also at 75s 3d. to 75s. 4½d month ; buyers, 74s. 7½d. cash ; sellers near.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is well held, but sales are not of any consequence owing to the small quantity offering. Olive is very steady, sellers being very firm in their ideas of prices. Linseed keeps its position well at 23s. 6d. cwt. for Liverpool makes in export casks. Cottonseed is steady at 20s. to 20s. 6d. cwt. for Liverpool refined. Castor oil is fairly steady as regards quotations, but business is not brisk ; good seconds Calcutta stands at 3⅜d., and first pressure French, 2⅞d. to 3d. Tallow keeps firm, and is selling satisfactorily at full figures. Resin is in fairly good demand for all grades at last quotations. Spirits of turpentine are in moderate request at 39s. cwt. on spot. Petroleum is quiet, with American at 7⅛d. to to 8½d , and Russian refined, 6⅛d. to 6⅜d. per gallon.

CAKES —There is a continued good demand experienced for spot parcels of American Western linseed on the spot, and the market remains very steady in tone, with sellers still quoting £7. 3s. 9d. to £7. 7s. 6d., and River Plate in second hands is also unaltered at £7. 10s to £7. 15s., and Bombay at £7. 15s. to £8. per ton, but the latter are in only moderate request at the respective quotations. Liverpool makes are again tending dearer, with a continued brisk demand from consumers, but so far the quotation is still given at £8. 5s. to £8. 15s. per ton, according to brand. Good to choice brands of American decorticated cottonseed are steadily held for £5. 17s 6d. to £6. 5s., according to quality, and there is a very fair demand thereat. Liverpool makes are also in good demand at recent quotations, viz., £6. 10s. to £6. 15s. per ton, according to brand, and the market remains firm in tone thereat. There is a moderate business passing in undecorticated Liverpool makes at £5. 5s. to £5. 10s , according to brand, but second hand lots of Egyptian on the spot offer at £5. 2s. 6d. to £5. 5s per ton in the absence of first hand sellers.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS—Since the prices recorded a week ago linseed and cotton oils have experienced some sharp and decided advances, especially so as these remarks apply to refined cotton oil, which jumped up about 25s. in one day. The imports up to date against the same time a year ago have been—linseed, 442,201 qrs. against 297,424 qrs.; rapeseed, 83,700 qrs. against 57,556 qrs.; cottonseed, 106,754 tons against 36,518 tons; oilcake, 15,722 tons against 10,185 tons; olive oil, 3,392 tons against 5,498 tons; tar, 10,882 barrels against 5,043 barrels. Linseed oil on the spot is in quiet demand and quoted 21s. per cwt. naked; 21s. 1½d. Oct.-Dec.; 21s. 3d. Jan.-April; boiled and refined, £1. to £1. 10s. per ton extra. The exports for the week have been 14 tons—3 tons Denmark, 1 Germany, 5 Holland, 5 Norway. Refined cotton oil is now quiet at the high prices now ruling, being quoted 18s. 3d. naked, spot, and 18s. 1½d. month, whilst new season's seed is due any time afterwards; the quotation is 17s. 7½d. Nov.-April, barrels £1. 10s and ordinary casks £1. per ton extra The exports for the week have been 45 tons—2 Belgium, 6 Germany, 24 Holland, 13 Sweden. Olive oil continues firm, Candia, £34 10s. per ton; Malaga, £35. Olive oil soap very firm, makers holding off from future engagements except at higher prices. Present prices from £17. per ton. Oleines £18 to £21. per ton. Tallow, in sympathy with other fats, firm. Castor oil firmer and higher prices required. Arachide nut oil, 26s. 6d. in barrels. Resins unchanged. Cod oil, £16. to £19. per ton.

CAKES—Linseed cakes firm, 95% pure, £8 10s to £8. 12s. 6d. Oilcakes (linseed), £7. 5s. to £7. 12s. 6d.; Russians, £8. to £8. 5s.; Americans, none. Cotton cakes steady; best makes, £5 5s. to £5. 7s. 6d.; seconds, £5. 2s. 6d. to £5. 3s. 9d.; decorticated, none. Rape cake: Black Sea, £5. to £5. 5s.

PAINTS.—Makers continue well employed without any change in prices.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The general market as yet almost fully retains the better feeling that has for some time existed, and in the heavier classes of goods enquiries and orders are met with in goodly number. There has been no particular change of value during the week, but late quotations are for the most part well maintained. Saltcake has gone a fraction higher, and some holders of sulphate of copper wait for a further advance. The chief, almost the only case of loss, is that of sulphate of ammonia whose leakage has continued leisurely, during the week, to £11 7s. 6d. prompt, f.o.b. Leith, or perhaps the next fraction lower. Oils and paraffins are all as before, the late rises being eagerly held.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 10s. basis, nett, Tyne: soda ash, £4. 10s. to £4. 15s. nett, Tyne; white alkali, £5. to £5. 7s. 6d. nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £9., 70/72° £8. 10s., 60/62° £7. 10s, and cream, 60/62° £8., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltcake, 26s; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2¾d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 7½d. to 7s. 9d; sulphate of ammonia, £11. 7s. 6d. prompt, f.o b. Leith; salammoniac, first and second white, £35. and £33. nett, any port: sulphate of copper, £25 10s. to £26., less 5% Liverpool; paraffin scale, hard, 2d. to 2½d. per lb., and soft, 2½d. per lb.; paraffin wax, 120° semi-refined, 3d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1., 6¼d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5. 10s., 885°, £6., to £6. 10s. and 890/895°, £6. 15s. to £7. Week's imports of sugar at Greenock were nil.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue fairly steady, with prices unchanged. Soda crystals are quoted at £2. 17s. 6d. per ton, gross weight, locally. Caustic Soda, 70% £8. 10s. per ton, and 76/77%, £9 5s. per ton. Sulphur scarce at £4. 15s. per ton.

Bleaching powder, softs, £5. 15s. per ton, nett; do., hards, £6. per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. 10s per ton, nett; do, 50%, £4. 12s. 6d. per ton, nett; do., 52%, £4. 15s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 3s 9d. per ton, nett; do., 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do., 100° Tw., £3. per ton, nett; do., 140° Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt firm at 9s. 6d. per ton, f.o b. Tees.

COALS—The "coal trade" still continues very active, and best Northumbrian steam and gas coals are in strong demand; in coke also the demand is full. To-days prices:—Best Northumbrian steam, 10s 6d. to 11s. per ton; second qualities, 9s. 6d to 10s. per ton: small steam, 7s. to 7s. 3d. per ton; bunker coals, 10s 3d. to 11s.; gas coals, 10s. 6d. to 11s.; coke, scarce, 24s to 25s.

New Companies.

Oxydol, Ltd—CAPITAL £5,000. in £1. shares. This company has been formed to adopt an agreement with Maiche, Ltd, for the acquirement of a certain invention and secret process, which are not described.

Stanley Paint Manufacturing Co., Ltd.—CAPITAL £15,000. in £1. shares. This company has been formed to acquire an invention for a solution for mixing with paint, to adopt an agreement with R. A. Parkin and G. Dickenson, and to carry on the business of paint, oil and colour manufacturers, etc. The subscribers to the memorandum of association are:—W. Hawley, 5, Harrington-stteet, Liverpool, estate agent; S. Griffith, 16, School-lane, Liverpool, printer; T. Kirby, 16, School-lane, Liverpool, bookbinder; T. J. Fletcher, 108, Dale-road, Liverpool, brewer; A. C. Smith, 16, Harrington-street, Liverpool, solicitor; F. Ley, 47, Lyell-street, Liverpool, bookkeeper; J. B. Cornwell, 27, Clarendon-road, Seacombe, Cheshire, manager.

English Paintoff, Ltd.—CAPITAL £30,000. in £1. shares. This company has been formed to acquire the business carried on at 68, Clapham Common, Surrey, by C. S. Bailey, as The English Paintoff Co., to acquire Patent No. 4,249 of 1896, and to manufacture and deal in paint-removing preparations, oils, colours, varnishes, soap, candles, proprietary articles, etc. The subscribers to the memorandum of association are:—W. E. Stone, 27, Weston-street, Upper Norwood, S.E., clerk; J. E. Evans-Jackson, 19-20, Holborn Viaduct, E.C., patent agent; E. H. Harberd, 19-20, Holborn Viaduct, E.C., engineer; J. W. Atkinson, 50, Holborn Viaduct, E.C., clerk; T. S. Dangerfield, 19-20, Holborn Viaduct, E.C., surveyor; F. F. C. Webb, 120, Barry-road, E. Dulwich, S.E., clerk; M. Weinberger, 19-20, Holborn Viaduct, E.C., clerk. Registered office, 19-20, Holborn Viaduct, E.C.

Dowlais Iron, Steel, and Coal Co., Ltd.—CAPITAL £1,100,000. in £1. shares (550,000 preference) This company has been formed to acquire the business carried on in South Wales under the style of The Dowlais Iron Co., and in the City of London, under the style of The Dowlais Iron Co. and Guest and Co., to search for, win, work, prepare for market and deal in coal, iron, limestone, clay, lead, and other metals and minerals, and to carry on the business of coke and chemical manufacturers, steel makers, electricians, engineers, etc. The subscribers to the memorandum of association are:—C. W. Mann, 25, Durham-road, E. Finchley, secretary; C. G. Webb, 5, Dashwood-road, Stroud Green, accountant; R. R. Wigram, 61, St. Mary's Mansions, Paddington, solicitor; F. E. Tootal, 12, Ebury-street, S.W., clerk; W. M. Pleadwell, 31, Castellain-road, Maida Hill, W., solicitor; F. C. Schnadhorst, Woodford Green, Essex, gentleman; W. A. Kaye, 35, Craven Hill Gardens, solicitor.

United Indigo and Chemical Co., Ltd.—CAPITAL £250,000. in £1. shares (125,000 pref.). This company has been formed to carry on the business of makers and dealers in extract, reduced or refined indigo, manufacturers, importers, exporters, and merchants of dyewares, extracts, dyewoods, acids, scouring powders, soaps, ashes, chrome assistants, one-dip and other mordants, cleaning solutions, milling materials, glycerine, oils, greases, acetates, tartars, ammonia, chemicals, and drysaltery; also to produce, store, manufacture, sell and supply heat, steam and other power, coal, oil, gas and electricity. The subscribers to the memorandum of association are:—G. V. Boyd, 64, Wellington-street, Glasgow, chemical manufacturer; J. Boyd, Paisley, chemical manufacturer; E. Barlow, Birchincliffe, Huddersfield, chemical manufacturer; H. F. Clayton, Craighnor, Huddersfield, chemical manufacturer; M. Kilner, Albion Works, Sovereign-street, Leeds, indigo refiner and extract manufacturer; J. Emmett, colour Works, Rueben-street, Leeds, chemical manufacturer; C. C. Bryant, Globe Chemical Works, Church, chemical manufacturer; W. C. Bryant, Globe Chemical Works, Church, chemical manufacturer. Registered office, Pall Mall, Manchester.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending September 30th.

Acetic Acid—
Holland, 110 pks. Little & Johnston
" 163 A. & M. Zimmermann

Acetone—
Germany, 3 dms. T. H. Lee
" 9 J. Norrenberg & Co.

Alkali—
Holland, 11 t. 2 c. G. S. N. Co.

Antimony Ore—
France, 1 t. 10 c. Girard Brs. & Co.
China, 71 R. Warner & Co.
" 50 Union L. Co., Ld.
" 4 H. J. Perlbach & Co.
Sydney, 14 D. W. Greenhough & Son
Australia, 12 A. Gibbs & Sons

Barium Sulphate –
Belgium, 200 pks. J. L. Lyon & Co.

Barytes—
Belgium, 53 pks. J. L. Lyon & Co.
Holland, 46 Taylor Brs.
" 16 Cotton Powder Co.
Germany, 8 Steinhoff, Sons & Co.
" 78 W. Harrison & Co.
" 10 H. Lambert

Bleaching Powder—
Holland, 20 cks. J. M. Steel & Co.

Bones—
Sydney, 11 t. C. A. & H. Nichols

Boracic Acid—
Italy, 18 pks. A. Laming & Co.

Borate of Lime—
Germany, 680 bgs. Borax Consolidated Co., Ld.

Borax –
Germany, £90 Craven & Co

Caoutchouc—
Straits, 2 t. 8 c. Prop Bull Wf.
" 6 0 Butler's Wf., Ld.
Mexico, 1 4 Praschkauer & Co.
B. W. I., 1 Perkins & Homer
Natal, 6 Lewis & Peat
" 8 Brookes & Green
Holland, 13 Anderson, Weber, & Smith
P. E. Africa, 1 5 Hale & Son
Germany, 4 Prop. Bull Wf.
France, 1 "
Rangoon, 2 3 L. & I. D. Jt. Co.
" 8 Prop. Hay's Wf.
U. States, 1 12 Anderson, Weber & Smith

Carbon—
Holland, £93 Phillips & Graves

Carbon Black –
U. States, 200 pks. L. & I. D. Jt. Co.

Castor Oil—
E. Indies, 23 cks. J. W. Cook & Co., Ld.
Italy, 25 cs. City Commercial Wf. Co., Ld.
" 12 White Brs.
Belgium, 15 brls. Capes & Self
" 28 Beresford & Co.

Caustic Lye—
Norway, £100 F. W. Berk & Co.

Caustic Potash—
Germany, 25 dms. J. M. Steel & Co.
France, 2 t. Burroughs & Co.

Chemicals *(otherwise unaescribed)*
France, £18 Mory & Co.
" 25 Langstaff, Ehrenberg, & Co.
Belgium, 5 John Cockerill Line
" 15 T. Palmer
Germany, 25 L. & I. D. Jt. Co.
" 27 Argo S. S. Co.
" 14 T. H. Lee
Greece, 14 Fellows, Morton & Co.
Holland, 20 M. Benscher
" 27 Netherlands S. B. Co.
" 10 T. H. Lee

Coal Products—
Carbolic Acid
Germany, 10 pks. Hollinghurst & Co.
Pitch
N. Russia, 350 cks. Harris Brs. & Brentford

Cream of Tartar—
Holland, 20 pks. Kirkpatrick, Barr, & Co.
France, 5 F. C. Devon & Co.
" 1 H. Johnson & Sons
" 40 W. C. Bacon & Co.
Italy, 20 "
Germany, 12 S. C. Jones
Spain, 5 B. & F. Wf Co., Ld.
U. States, 5 M. Ashby, Ld.

Disinfectants—
Germany, £35 J. Norrenberg & Co.

Dyestuffs—
Aniline
Holland, 1 pk. T. Palmer
Argois
Spain, 44 pks. Thames S. T. & L. Co., Ld.
Cape, 64 Hammond & Co.
Cochineal
Canaries, 21 pks. L. & I. D. Jt. Co.
Cutch
Rangoon, 300 pks. Brown & Elmslie
" 250 H. A. Litchfield & Co.
Extract
France, 205 pks. Beresford & Co.
" 1 Burnett Brs. & Sons
" 1 Prop. Hay's Wf.
" 80 B. & F. Wf. Co., Ld.
" 50 L. J. Levinstein & Sons
Denmark, 2 Bailey & Leetham, Ld.
U. States, 75 Skilbeck Brs.
Austria, 100 Boutcher, Mortimore & Co.
" 70 Bellamy's Wf., Ld
Gambier
Straits, 5 pks. L. & I. D. Jt. Co.
" 299 Brinkmann & Co.
" 144 Brown & Elmslie
" 90 R & J. Henderson
" 3,565 W. Pope & Co.
" 513 Prop. Hay's Wf.
Indigo
Germany, 5 chts. J. Karpeles & Co.
Myrabo ams
E. Indies, 1,000 pks. W. Pope & Co.
" 683 W. Shelcott & Sons
" 1,000 A. B. Curtis & Co.
Naphthaline
Germany, 3 pks. Craven & Co.
Saffron
Spain, 1 pk. J. Barber & Co.
" 1 Nichs Wvs., Ld.
Tanners' Bark
Cape, 52 t. Beresford & Co.
Natal, 13 Flack, Chandler & Co.
" 24 A. & W. Nesbitt
Valonia
A. Turkey, 50 t. A. & W. Nesbitt

Farina—
U. States, 210 pks. R. G. Hall & Co.
" 32 L. & I. D. Jt. Co.
Germany, 30 T. H. Lee
" 20 Dunlop Brs. & Co.
" 50 H. Lorenz
" 110 J. Barber & Co.
France, 4 E. Flageollet, Parent, & Co.

Gamboge—
Straits, 11 cs. L. & I. D. Jt. Co.

Glucose—

U. States,	280 pks.	1,260 c.	W. Grose & Co.
"	2,496	2,496	R. G. Hall & Co.
"	730	750	C. Mangold & Co
"	250	250	Bellamy's Wf., Ld.
"	1,150	6,940	H. A. Litchfield & Co.
"	600	600	L. & I. D. Jt. Co.
"	500	500	Pickford & Co.
"	750	760	Deering & Robottom
Germany,	35	284	"
"	23	312	London Glucose Co.
France,	200	394	L. Norman & Co., Ld.
"	100	103	C. Barnard
"	100	100	W. E. Cole

Glue—
Germany, £180 Beresford & Co.
" 30 Becker & Wagner
" 105 L. & I. D. Jt. Co.
" 130 Argo S. S. Co.
" 62 Hernu, Peron, & Co.
" 144 M. D. Co.
N. Russia, 250 M. H. Voss
France, 150 T. M. Duche & Sons
" 315 Frey & Co.
" 12 Bennett S. S. Co.
" 90 Burnett Brs. & Sons
" 27 Mory & Co.
" 415 pks. Prop. Hay's Wf.
U. States, 100 Ldn. Parcels Del. Co.
Holland, 20 Phillips & Graves
Belgium, 128 Leach & Co.
" 300 G. E. Banes
" 500 Becker & Wagner

Glycerine—
Germany, £25 F. Bochen
Sydney, 100 L. & I. D. Jt. Co.
Holland, 450 J. Barber & Co.

Gutta Percha—
Straits, 12 t. 12 c. W. Pope & Co.
" 15 19 Gilman Brs. & Co.
" 25 13 Kleinwort, Sons & Co.
" 28 5 Anderson, Weber, & Smith
" 20 Prop. Bull Wf.
" 29 10 H. W. Jewsbury & Co.
Guiana, 1 10 Lewis & Peat
Germany, 7 10 J. Barber & Co.

Iron Oxide—
Germany, 6 pks. H. Lambert

Manganese—
Germany, 20 kgs. Petri Brs.

Manure—
Germany, 146 t. F. W. Berk & Co

Methylic Alcohol—
France, 5 cks. E. Catlin

Molasses—
U. States, 5 cks. 20 c. Davies, Turner, & Co
" 250 1,4 0 J. W. Cook & Co.

Ochre—
Holland, 169 pks. Phillipps & Graves
France, 28 W. Harrison & Co.
" 40 W. Balchin, Ld.
" 18 H. Burman
" 97 J. L. Lyon & Co.

Oxalic Acid—
Holland, 10 pks. R. W. Greeff & Co.

Phosphates—
U. States, 2,738 t. West & Penrose
Tunis, 1,450 A. Hunter & Co.

Phosphoric Acid—
Germany, 8 pks. Fuerst Brs.

Potash—
Germany, £40 T. H. Lee

Potassium Carbonate—
Germany, 9 t. 10 c. Petri Brs.
" 5 A. & M. Zimmermann
France, 5 c. Burroughs & Co.

Potassium Oxalate—
Holland, 10 pks. R. W. Greeff & Co.

Potassium Permanganate –
Germany, 80 kgs. R. W. Greeff & Co.

Pyrites—
Pomaron, 1,300 t. Mason & Barry, Ld.

Red Lead—
Holland, 17 pks. Perkins & Homer

Rosin—
France, 38 pks. Lucas & Spencer's Wf.
" 100 brls. Perkins & Homer
" 120 J. Watt & Son
U. States, 1,000 F. & S. Chiesman

Salicylic Acid—
Belgium, 6 pks. John Cockerill Line

Saltpetre—
Germany, 10 cks. Cotton Powder Co.
" 60 P. Hecker & Co.
Belgium, 10 "

Soda Crystals—
Belgium, 25 t. R. W. Greeff & Co.

Sodium Acetate—
Belgium, 2 pks E. Catlin

Sodium Hyposulphite—
Holland, 176 kgs. R. W. Greeff & Co.
Germany, 5 t. 8 c. H. Lambert

Sodium Nitrate—
Germany, 119 bgs. Burnett Brs & Sons
Chile, 6,007 Anglo-Cont. Guano Wks

Starch—
U. States, 110 pks. C. Tennant, Sons & Co
Belgium, 265 Becker & Wagner
" 140 T. H. Lee
" 240 T. Ronaldson & Co.
" 147 Leach & Co.
" 40 J. Harrison
France, 510 E. & T. Pink
" 31 L. Mendelsohn
" 220 A. C. Hitchcock
Holland, 150 J. R. Francis & Co.
" 680 A. Starck
" 2,794 Little & Johnston
" 35 G. S. N. Co.
Germany, 60 Argo S. S. Co.
" 5 Pickford & Co.
" 1,770 Horne & Co.

Stearine—
Tripoli, 10 cs. L. & I. D. Jt. Co.
France, 133 bgs. H. Hill & Sons

Sulphur Chloride—
Holland, £27 Typke & King

Sulphuric Acid—
Germany, 30 pks. Spencer & Chapman
" 3 H. Lambert

Tallow—
Belgium, 125 bgs. H. Hill & Sons
———, 123 cks. Elkan & Co.
U. States, 150 Price's Pat. Candle Co.
Victoria, 374 H. Lambert
" 81 G. S. Yuill & Co.
" 79 Goad, Rigg, & Co.
" 298 Capes & Self
" 69 A. Frey, Ld.
" 72 Elkan & Co.
" 49 Hicks, Nash, & Co.
" 49 Culverwell, Brooks, & Co.
" 130 Phillipps & Graves
N.S.W., 36 "
" 632 Goad, Rigg, & Co.
" 177 Flack, Chandler, & Co.
France, 10 B. & F. Wf. Co., Ld.
N. Zealand, 134 J. Owen

Tartaric Acid—
Holland, 20 pks. B. & F. Wf. Co., Ld.
" 32 Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 13 pks. G. S. N. Co.

Varnish—
Germany, 21 pks. Argo S. S. Co.

Washing Powder—
Belgium, £50 W. R. Bland & Co.

Waste Salt—
Germany, 60 t. Humphery & Co.
" 25 R. W. Greeff & Co.

White Lead—
Germany, 9 pks. W. Batchelor
" 7 H. Lambert
" 10 Wilkinson, Heywood & Co.
Belgium, 105 T. & W. Farmiloe, Ld.
" 29 J. R. Francis & Co.
Holland, 20 Kerestedji & Co.

Wolfram Ore—
Queensland, 10 t. 10 c. H. Grey, Junr.
" 2 L. & I. D. Jt. Co.

Wood Pulp—
Belgium, 2,052 pks. J. Harrison
U. States, 293 A. E. Reed & Co.
" 1,760 Henderson, Craig, & Co.
Norway, 1,600 Andrews & Co.
" 400 E. J & W. Goldsmith
" 80 Tough & Henderson
" 1,720 J. Sharp
Sweden, 40 A. E. Reed & Co.

Zinc Oxide—
Germany, 75 pks. R. W. Greeff & Co.
" 12 Prprs. Dowgate Dk.
Belgium, 2 T. Ronaldson & Co.
Holland, 56 Netherlands S. B. Co.
" 152 M. Ashby, Ld.
U. States, 300 "

LIVERPOOL.

Week ending September 28th.

Acetate of Lime—
New York, 2,457 bgs.

Aluminium—
New York, 19 cs. T. Ashbury

Antimony—
Antofagasta, 90 bgs. Gregory, Lawson, & Co.
Mollendo, 567 Merchant Bnk. Co.

Barytes—
Antwerp, { 66 cks. / 100 bgs

Bone Ash—
Zarate, 125 bgs. J. Nelson & Sons, Ld.

Bone Black—
Philadelphia, 30 brls. E. F. Houghton & Co.

s—
andria, 133 bg..
imbo, qty.
araiso, 157 sks. Pacific S. Navigation Co.
,, 100
, 415 cs. Kleinwort, Sons, & Co.

e of Lime—
fagasta, 1,660 sks. Duncan, Fox & Co.
que, 1,230 bgs.

r Oil—
utta, 100 cs. Ralli Brs

icals *(otherwise undescribed)*
erdam, 1 cs.

ne Ore—
more, 33 cks. P. R. McQuie & Son

Products—
iline Salt
erdam, 4 cks.

nseed Oil—
rleans, 500 brls.

n of Tartar—
eaux, 46 cks.

tuffs—
gois
to, 72 cks
ton
goon, 370 bxs.
tract
York, 25 brls. McArthur & Co.
adelphia, 50
n, 300 cks. Co-op W'sale Society Ld.
fax, N. S., 164 W. I. Cheml. Wks,
Nazaire, 130
stic
Cruz, 5,000 pcs. R B. Watson & Co.

rabolams
bay, 4,932 bgs.

ffron
ncia, 2 cs.

alonia
rna, 1,418 bgs.

se—
more, 130 brls.
irk, 113 bgs.
—
n, 251 cks. Co-op. W'sale
10 bgs. Society, Ld.
Nazaire, 10 bls.
erdam, { 2 / 141 bgs.

o—
yres, 906 bgs.

Piths—
yres. qty.
araiso, 100 sks.

ed Oil—
chi, 15 cks

anese—
imbo, 1,375 t.

re—
urg, 684 t.
chi, 3,000 bgs. Ralli Brs.
6,700

sses—
rleans, 2,500 brls.

t—
n, 150 brls. Co-op W'sale Society. Ld.

fin Wax—
York, 840 brls. Anglo-Amer. Oil Co.

phates—
aw, 2,637 t.

phorus—
treal, 76 cs.

ih—
n, 69 cks. Co-op. W'sale Society, Ld.
treal, 30 brls.

es—
va. 3,172 t. Matheson & Co.

Lead—
erdam, 29 sks.
—
more, 2,200 brls.
eaux, 157 cks.
—
10, 300 t.

etre—
chi, 454 bgs.
—
rleans, 680 brls.

New York, 300 bxs. B. T. Babbitt
,, 3,055
Bombay, 1
Antwerp, 1 cs.
Boston 12 W. Foggett
W. C. Africa, 3
Rotterdam, 2

Starch—
Antwerp. 240 cs
New York, 10 brls. Gublet, Harry, & Co.
Rotterdam, 40 cs.

Stearine—
Antwerp, 25 bgs.

Tallow—
Zarate, 153 pps. J. Nelson & Sons
New York, { 150 hhds. / 538 tcs.
,, 100 hhds, 251 Eastmans, Ld.
B. Ayres, 1,148 hhds.
,, 184 pps. London & Brazilian Bank

Tartaric Acid—
Rotterdam, 2 cks.

Turpentine—
Brunswick, 1,000 sks.

Ultramarine—
Rotterdam, 20 cks.

White Lead—
Rotterdam, 67 cks.

Wood Pulp—
Gothenburg, 13 pks. G. Schenckenwald & Co.
Rotterdam, 62
Quebec, 239 H. B. Woods
,, 1,344 bls. A. Wortheim & Co.
Valencia, 1 cs.

Zinc Oxide—
Antwerp, 55 brls.
New York, 200
Rotterdam, 100

Zinc White—
Rotterdam, 25 cks

MANCHESTER.

Week ending September 30th.

Ammonia—
Rotterdam, 2 cldrs.

Asbestos—
Rotterdam, 4 bls.

Barytes—
Antwerp, 100 bgs.

Chrome Acid—
Rotterdam, 2 cks.

Coal Products—
Alizarine
Rotterdam 107 cks.
Aniline
Rotterdam, 19 cks. 16 cs
Aniline Oil
Rotterdam, 11 cks.
Aniline Salt
Rotterdam, 19 cks.

Colours—
Antwerp, 2 brls.
Rotterdam, { 46 cks. 9 cs. / 54 brls. / 21 bxs.

Cream of Tartar—
Antwerp, 5 cks.

Dyestuffs—
Extract
Rotterdam, 10 cks.

Farina—
Stettin, 1,860 bgs. Browne, Geveke & Co.
,, 1,205

Glucose—
Stettin, 200 bgs.

Glue—
Rotterdam, { 5 cks. / 21 bgs.
Stettin, 20

Lead Acetate—
Hamburg, 5 cks.

Limestone—
Antwerp, 2 crts. J. T. Fletcher & Co.
,, 5

Litharge—
Rotterdam, 17 cks.

Lithopone—
Hamburg, 40 cks.

Nitrate—
Rotterdam, 12 cks.

Potash—
Rotterdam, 8 dms.

Potassium Bisulphide—
Hamburg. 2 cks.

Pyrites—
Huelva, 1,869 t.

Potassium Prussiate—
Antwerp, 25 cks.

Starch—
Antwerp. 300 cs.
Hamburg, 282
Rotterdam, { 50 bls. 40 / 20 bgs.

Stearine—
Rotterdam, 13 bls.

Tannic Acid—
Hamburg. 16 cks.

Tartaric Acid—
Rotterdam, 40 cks.

Ultramarine—
Rotterdam, 2 cks.

Wood Pulp—
Christiania, 2,580 bls. W. H. Ingram
Drammen, 240 ,,
Gothenburg, 4,165 107 bdls.
,, 986 pks.
Hamburg, 480
Rotterdam, 158
Sarpsborg, 1 981
Skein, 1,180 W. H. Ingram

Zinc Acetate—
Hamburg, 2 cks.

Zinc Sulphate—
Rotterdam, 2 cks.

Zinc White—
Rotterdam, 25 cks.

HULL.

Week ending September 30th.

Acetia—
Rotterdam, 1 brl. Hull & Netherlands S. S. Co.

Acid—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.

Antimony Salt—
Bremen, 6 cks. Veltmann & Co.

Asbestos—
Aalesund, 1 cs. Wilson, Sons. & Co., Ld.
Rotterdam, 2 bls. Hull & Netherlands S. S. Co.

Barytes—
Amsterdam, 40 cks. Hull & Netherlands S. S. Co.
Antwerp, 278 pks. H. F. Pudsey
Bremen, 75 cks. Sissons Brs. & Co.
,, 37
Hamburg, 56 Bailey & Leetham. Ld.
Rotterdam, 42 Hull & Netherlands S S Co.

Chemicals *(otherwise undescribed)*
Bremen. 1 cs. J. Pyefinch & Co.
2 pks.
Rotterdam, 5 cs. Hull & Netherlands S. S. Co.
1 brl.

Coal Products—
Alizarine
Rotterdam, 20 bxls. Hull & Netherlands S. S. Co.
129 pks
Aniline
Rotterdam, 157 pks. Hull & Netherlands S. S. Co.
Aniline Salt
Konigsberg, 3 cks Wilson, Sons, & Co., Ld.
Creosote Salt
Rotterdam, 8 pks. Hull & Netherlands S. S. Co.
Pitch
St. Petersburg, 1 ck.
Tar
Stockholm, 160 brls. Wilson, Sons, & Co., Ld.

Colours—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co.
Antwerp, 28 Wilson,
1 brl. Sons, & Co., Ld.
Bremen, 2 cs. Veltmann & Co.
,, 6 pks. J. Pyefinch & Co.
Hamburg, 5 cs.
Konigsburg, 2 Wilson, Sons, & Co., Ld.
Rotterdam, 2 cks. ,,
,, { 2 brls. / 1 bx. / 127 pks. Hull & Netherlands S. S. Co.
Stettin, 50 cks. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Bordeaux, 2 cks.

Dyestuffs—
Extract
Rouen, 14 cks. Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 4 chts. Hull & Netherlands S. S. Co.
5 brls.
Sumach
Antwerp, 26 brls. Wilson, Sons, & Co., Ld.

Farina—
Hamburg. 262 bgs.
Harlingen, 100 Hull & Netherlands S. S. Co.
250 bls.
Stettin, 450 bgs.

Felspar—
Christiansand, 1 bx. Wilson, Sons, & Co., Ld.

Gelatine—
Rouen, 20 cs. Wilson, Sons, & Co., Ld.

Glucose—
Hamburg, 74 cks. Bailey & Leetham, Ld.
Stettin, 100 bgs. Wilson, Sons, & Co., Ld.

Glue—
Bergen, 10 brls. Wilson, Sons, & Co., Ld.
Hamburg, 40 bgs. ,,
,, 20
Rouen, { 12 cks. / 9 bls. ,,
Rotterdam, 10 bgs. Hull & Netherlands S. S. Co.

Manure—
Stavanger, 625 bgs. Wilson, Sons, & Co., Ld.

Ochre—
Rouen, 33 cks.

Paint—
Amsterdam, 18 pks. Hull & Netherlands S. S. Co.
Copenhagen, 2 brls. Wilson, Sons, & Co., Ld.

Paraffin Wax—
New York, 800 brls.

Potash—
Antwerp, { 11 cks. / 7 brls. / 35 bgs. Wilson, Sons, & Co., Ld.
Dunkirk, { 23 dms. / 70 cks. ,,
Stettin, 10 ,,

Pyrites—
Huelva, 700 t.

Saltpetre—
Hamburg, 20 cks. C. E. Johnson & Co.

Soda—
Antwerp, 43 pks. Wilson, Sons, & Co., Ld.
,, 2 cks.
Ghent, 50 bgs.
Hamburg, 8 cks. ,,

Sodium Sulphite—
Antwerp, 3 dms.

Starch—
Amsterdam, 120 cs. Hull & Netherlands S. S. Co.
30 bgs.
Antwerp, 400 cs.
Bremen, 1,344 Veltmann & Co.
Ghent, 343 Wilson, Sons, & Co., Ld.
New York 325 bgs.

Tallow—
Dunkirk, 202 cks. Wilson, Sons, & Co., Ld.

Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Tartaric Acid—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.

Turpentine—
Riga, 52 cks.

Ultramarine—
Rotterdam, 9 cks. Hull & Netherlands S. S. Co.

Varnish—
Hamburg, 1 ck. Bailey & Leetham, Ld.
Rotterdam, 8 Hull & Netherlands S. S. Co

Waste Salt—
Hamburg, 203 t., 50 bgs.
White Lead
Amsterdam, 31 cks. Hull & Netherlands S. S. Co.
Antwerp, 20 Bailey & Leetham, Ld.
" 10 brls. T. J. Chambers & Co
Ghent, 24 cks.
Rotterdam, 21 Hull & Netherlands S. S. Co.
Wood Pulp—
Antwerp, 128 pks. Wilson, Sons, & Co., Ld.
Christiania, 2,648 bls. "
Drontheim, 160
Gothenburg, 77 pks. Wilson, 80 bls, Sons, & Co., Ld.
Hamburg, 320 pks. Bailey & Leetham, Ld.
Helsingfors, 773 bls. J. Good & Sons
" 298
Norrkoping, 867
Zinc Oxide—
Antwerp, 44 cks. Bailey & Leetham, Ld.
Zinc White—
Amsterdam, 84 cks. Hull & Netherlands S. S. Co

GLASGOW.

Week ending October 5th.

Ammonia—
Antwerp, 6 dms.
Antimony Salt—
Rotterdam, 10 cks. J. Rankine & Son
Asbestos—
Genoa, 38 bls., 9 cs.
Barium Chloride—
Rotterdam, 4 cks. J. Rankine & Son
Barium Sulphate—
Antwerp, 200 bgs.
Barytes—
Hamburg, 22 cks.
Rotterdam, 87 J. Rankine & Son
Bleach—
Hamburg, 68 cks.
Castor Oil—
Antwerp, 27 cks.
Leghorn, 25 cs.
Chemicals *(otherwise undescribed)*
Rotterdam, 2 cks., 2 cs
Chlorate of Manganese—
Rotterdam, 5 cks. J. Rankine & Son
Chrome Alum—
Rotterdam, 4 cks. J. Rankine & Son
Coal Products—
Alizarine
Rotterdam, 22 cks., 13 brls. J. Rankine & Son
Aniline
Rotterdam, 17 cks. J. Rankine & Son
Colours—
Hamburg, 14 cks., 2 cs.
Rotterdam, 7, 17 bxs., 19 cks., 178 pks., 80 brls. J. Rankine & Son
Cottonseed Oil—
New York, 50 brls.
Rotterdam, 50 J. Rankine & Son
Cream of Tartar—
Genoa, 20 brls.
Naples, 2 cks.
Dyestuffs—
Cutch
Rangoon, 250 cs. P. Henderson & Co.
Extract
Antwerp, 1 ck.
Myrabolams
Calcutta, 400 pckts. G. Smith & Sons
Sumac
Palermo, 100 bgs.
Glue—
Antwerp, 10 bls.
Hamburg, 1 bg.
Litharge—
Rotterdam, 3 cks. J. Rankine & Son
Magnesium Chloride—
Hamburg, 100 dms.
Magnesium Sulphate—
Hamburg, 500 bgs.
Oxalic Acid—
Rotterdam, 17 cks. J. Rankine & Son
Painters' Colours—
Antwerp, 2 cks.
Paraffin Wax—
Rangoon, 838 cs. P. Henderson & Co.
Plumbago—
Genoa, 401 bgs
Potash—
Hamburg, 90 cks.
Potassium Oxalate—
Rotterdam 5 cks. J. Rankine & Son
Rosin—
New York, 1,100 brls.
Salt—
San Lucar, 20 sacks
Saltpetre—
Hamburg, 100 cks.
Soap—
Leghorn, 15 cs.
Naples, 19
Soap Stock—
New York, 101 brls.
Starch—
New York 125 bgs.
Stearine—
Amsterdam, 60 bgs. J. Rankine & Son
Sulphur Ore—
Huelva, 1,950 t Rio Tinto Co., Ld.
Tartar—
Bordeaux, 13 cks.
Tartaric Acid—
Rotterdam, 2 cks. J. Rankine & Son
Ultramarine—
Antwerp, 12 cs.
Varnish—
New York, 10 brls.
White Lead—
Rotterdam, 15 pks. J. Rankine & Son
Wood Pulp—
Christiania, 1,000 bls.
Drammen, 2,078
Zinc Oxide—
Antwerp, 22 cks.
Hamburg, 50
New York, 120 brls.
Zinc White—
Rotterdam, 101 pks. J. Rankine & Son

TYNE.

Week ending September 30th.

Antimony Ore—
Vera Cruz, 3,714 bgs.
Asbestos—
Hamburg, 40 bgs. Tyne S. S. Co.
Barytes—
Antwerp, 800 bgs. Tyne S. S. Co.
Rotterdam, 250 "
Chemicals *(otherwise undescribed)*
Hamburg, 1 cs. Tyne S. S. Co.
Coal Products—
Tar
Archangel, 2,930 brls.
Konigsberg, 50 Slater & Procter
Colours—
Rotterdam, 1 ck.
Limestone—
Antwerp, 7 crts. Tyne S. S. Co.
Paint—
Hamburg, 32 dms.
Salt—
Hamburg, 270 t. Clephans & Wiencke
Starch—
Ghent, 40 cs. Tyne S. S. Co.
Rotterdam, 144 "
Tartaric Acid—
Rotterdam, 2 cks.
Waste Salt—
Harburg, 300 t. Clephans & Wiencke
Wood Pulp—
Christiania, 800 bls.
Gothenburg, 137 Pyman, Bell, & Co.
Zinc Ashes—
Christiania, 73 bgs.
Zinc Oxide—
Antwerp, 40 brls. Tyne S. S. Co.

GOOLE.

Week ending September 27th.

Antimony—
Boulogne, 1 ck.
Barytes—
Antwerp, 150 bgs.
Caoutchouc—
Boulogne, 12 cks.
Coal Products—
Alizarine
Rotterdam, 13 cks.
Dyestuffs *(otherwise undescribed)*
Antwerp, 5 cks.
Boulogne, 34, 1 cs.
Rotterdam, 354, 58
Dyestuffs—
Extract
Hamburg, 20 bgs.
Quebracho Extract
Antwerp, 104 cks.
Hamburg, 50 bgs.
Farina—
Delfszbyl, 225 bgs.
Glucose—
Hamburg, 4 cks.
Glue—
Antwerp, 34 bs.
Boulogne, 4 cks.
Phosphates—
Ghent, 808 bgs.
Potash—
Calais, 2 cks., 32 dms.
Dunkirk, 5, 20
Hamburg, 19, 21
Potassium Sulphate—
Rotterdam, 3 cs.
Saltpetre—
Rotterdam, 100 bgs.
Sodium Nitrate—
Rotterdam, 8 cks.
Starch—
Ghent, 120 cs.
Tartaric Acid—
Rotterdam. 1 ck.
Wood Pulp—
Rotterdam, 107 bs.
Skein, 2,998
Zinc Oxide—
Antwerp, 10 brls.

GRIMSBY.

Week ending September 30th.

Caoutchouc—
Antwerp, 1 cs.
Hamburg, 12
Rotterdam. 3
Chemicals *(otherwise undescribed)*
Antwerp, 4 cks. 1 cs.
Hamburg. 10, 2, 3 pks
Coal Products—
Pitch
Dieppe, 10 cks.
Colours—
Hamburg, 56 cks., 239 pks., 10 cs.
Rotterdam, 1, 200 bgs.
Dyestuffs *(otherwise undescribed)*
Antwerp, 26 cks. 143 pks.
Ferro Chrome—
Antwerp, 40 cs.
Starch—
Antwerp, 130 cs.
Tartar—
Dieppe, 5 cks.
Wood Pulp—
Helsingborg, 8 bs.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending October 4th.

Ammonia—
Lyttelton, 5 cs. £15
Ammonium Carbonate—
Rouen, 5 t. 10 c. £150
Boston, 30 pks 78
Kobe, 2, 10 79
Hiogo, 6, 5 197
Singapore, 6 cs. 11
Amsterdam, 20 cks. 30
Hamburg, 24, 7 75
Antwerp, 20 kgs. 35
Ammonium Muriate—
Cologne, 17 cks, £96
Ammonium Sulphate—
Jersey, 25 t. £300
Bremen, 50 600
Antwerp, 80 960
Bisulphite of Lime—
Colombo, 3 t. 12 c. £53
Bone Ash—
Durban, 2 t £50
Borax—
Durban, 5 c. £12
Rotterdam, 1 t. 8 30
Caustic Soda—
Wanganui, 8 c. £17
Pt. Elizabeth, 2 t. 43
E. London, 16 17
Napier, 10 16
Melbourne, 11 8
Chemicals *(otherwise undescribed)*
Genoa, 20 kgs. £120
Montreal, 10 cs. 96
Calcutta, 4 15
Hamburg, 2 10
R. Galleges, 20, 300 dms. 294, 10 cks.
Antwerp, 10 16
New York, 16, 70 977
Sydney, 17, 8, 36 pks. 215
Durban, 5 75
Toronto, 15 23
Auckland, 8, 39 68
Ostend, 7 391
Newport News, 6 40
Melbourne, 44 118
Citric Acid—
Jamaica, 1 kg. £9
Hamburg, 1 9
Montreal, 2 cks. 2 cs. 22
Pt. Elizabeth, 1 c. 9
Melbourne, 2 16
Coal Products—
Alizarine
Boston, 21 cks. £286
Aniline
Boulogne, 4 cks. £13
Calcutta, 12 kgs. 180
Anthracene
Rotterdam, 470 cks. £383
Cologne, 252 554
Dusseldorf, 200 420
Anthracene Oil
Helsingfors, 20 cks. —
Benzol
Boulogne, 50 cks £235
Antwerp, 62 200
Treport, 62 160
Carbolic Acid
Sydney, 6 cs. £21
Toronto, 30 cks. 215
Melbourne, 1 13
Sydney, 100 dms. 73

Cologne, 25 115
Rotterdam, 49 121
Coal Tar Dyes
Boulogne, 4 cks. £68
Boston, 4 pks. 62
Creosote
New York, 100 cks. £160
Newport News 250 187
Ostend, 27,600 galls. 247
Ghent, 22,600 247
Gibraltar, 40 brls. 45
Creosote Oil
Helsingfors, 20 cks. —
Naphthaline
New York, 28 cks. £40
Pitch
Wellington, 8 cks. 3 cs. £10
Boston, 700 cks. £334
Dunkirk, 91 t. 170
Amsterdam, 1,580 2,017
Antwerp, 1,020 1,468
Tar
Alexandria, 10 cks. £10
Cape Town, 90 dms. 7
Singapore, 100 brls. 180
Colombo, 20 rnlts. 19
Melbourne, 30 7
Wellington, 30 7
Penang, 10 6
Toluol
Rotterdam, 25 cks. £86
Cologne, 25 dms. 266

Copper Sulphate —
Amsterdam, 1 t. 14 c. £37
Azores, 5 7
Treport, 10 14 238
Cream of Tartar —
Fremantle, 8 c. £31
Sydney, 2 t. 150
Cyanogen Bromide—
Montreal, 10 c. £ 68
Disinfectants—
Canterbury, 5 cs. £ 5
Wellington, 10 pks. 60
Durban, 90 22
Rio de Janeiro, 8 cks. 26
E London, 140 24
Penang, 5 40
Montreal, 12 31
Aden, 20 dms. 18
New York, 28 95
Jamaica, 10 10
Cape Town, { 200 / 95 pks. } 145
Glycerine—
Montreal, 5 t. £220
New York, 50 dms. 740
Hydro-Carbon—
Brussels, 17 dms. £25
Hypophosphite of Lime —
Philadelphia, 15 c. £257
Manure —
Bordeaux, 42 t. 10 c. £245
Madeira, 2 17
Fremantle, 50 115
Jersey, 1 5
E. London, 10 42
Calcutta, 3 16
Ghent, 30 53
Adelaide, 102 9 420
Havre, 30 100
Rouen, 155 475
Oxalic Acid—
Antwerp, 1 t. 2 c. £32
Oxygen Gas—
Amsterdam, 2 cs. £23
Phosphates—
Cape Town, 825 t. £2,919
Phosphorus—
St. John, N.B., 5 cs. £41
Potassium Chlorate—
Batoum, 20 kgs £34
Cape Town, 3 cs. 5
Dunedin, 10 85
E. London, 1 t. 5 c. 45
Potassium Cyanide—
E London, 15 t. £1,601
Calcutta, 2 c. 11
Montreal, 2 240
Durban, 7 621
Auckland, 5 501
Fremantle, 11 10 96
New York, 180 cs. 917
Potassium Prussiate —
Genoa, 6 cks. £110
Shanghai, 1 c. 6
Montreal, 2 18
Salammoniac—
Trebizonde, 1 t. £22
Saltpetre—
Cartagena, 6 c. £11
Canterbury, 10 10
Oporto, 4 t. 5 84
Fremantle, 1 10 35
Sheep Dip —
Dunedin, 11 t. 3 c. £350
Pt. Elizabeth, 5 750 dms. 170
Invercargill, 11 3 250
Cape Town, 370 97
Soda—
Cape Town, 11 c. £9
Rosario, 4 9
Sodium Bicarbonate—
Aden, 17 c. £7
Sodium Nitrate —
Rouen, 5 t. 4 c. £80
Sodium Sulphate—
Constantinople, 10 t. 12 c. £68
Ghent, 75 112
Strychnine—
Adelaide, 2 c. £26
Sulphur—
Dunedin, 15 cks. £28
Trinidad, 1 t. 8
Sulphuric Acid —
Aden, 1 t. 1 c. £66
Colombo, 30 cs 27
Superphosphates —
Fremantle, 25 t. £77
Jersey, 54 19 c. 175
Tartaric Acid—
Fremantle, 3 c. £18
Durban, 6 30
Zinc Sulphate —
Brussels, 2 t. £40

LIVERPOOL.

Week ending October 4th.

Ammonium Carbonate—
Antwerp, 15 c. 2 q. £87
Genoa, 2 t. 10 69
Hamburg, 10 14
Nantes. 1 28
Pernambuco, 12 2 20
Lisbon, 5 brls. 14
Ammonium Muriate—
Alexandria, 5 c. £6
Seville, 10 11
Barcelona, 2 t. 2 44
Ammonium Sulphate—
Savanilla, 1 t. £12
Valleyfield. 4 18 c. 60
Philadelphia, 26 32
Penang, 28 17 38
Sourabaya, 447 14 1 q. 5,680
Lisbon, 20 10 238
Las Palmas, 71 18 871
Valencia, 151 1,766
New York, 251 15 2,971
Brindisi, 20 250
Gd. Canary, 50 13 3 60
Leghorn, 10 122
Bordeaux, 35 18 1 431
Nantes, 150 15 2 1 843
Cartagena, 20 5 1 230
Amorph. Phosphorus—
Hiogo, 15 cs. £1 0
Antimony—
Malta, 1 ck. £6
Baryta—
Malta, 2 cks. £7
Basic Slag—
Natal, 100 t. £212
Bleaching Powder—
Baltimore, 107 cks.
Bombay, 25 cs
Bordeaux, 8 40 brls.
Boston, 773
Cambrai, 18
E. St. Louis, 30 bxs.
Fiume, 30
Genoa, 106
Leghorn, 36
Lisbon, 60
Milwaukee, 262
New York, 94
Oporto, 7
Philadelphia, 266
Windsor Mills, 47
Boracic Acid —
Antwerp, 1 t. £28
Piræus, 3 c. 5
Melbourne, 4 112
Rotterdam, 1 9 1 q. 41
Borax—
M. Video, 12 c. £10
Habana, 1 t. 2 17
Antwerp, 15 2 1 233
Stettin, 6 14 112
Rotterdam, 10 10 174
Hamburg, 50 15 1 836
Melbourne, 10 9
Hiogo, 3 11 —
Santiago de Cuba, 1 1 1 17
Calcium Carbide—
Singapore, 3 c. £7
Calcium Chloride—
E. St. Louis, 13 t. 10 c. £26
New York, 13 5 25
Rangoon, 2 19 6
Colombo, 2 3 5
Carbonate of Lime—
Lisbon, 1 t. 13 c. 1 q. £12
Carbonic Acid Gas—
Punta Arenas, 6 c. 3 q. £2c
Castor Oil—
Accra, 10 cs.
Axim, 15
Havana, 4
Old Calabar, 18 dms.
Caustic Potash—
E. St. Louis, 1 t. 1 c. £30
Milan, 12 15
Hong Hong, 7 13
Boston, 1 1 3
Caustic Soda—
Alexandria, 60 dms. 40 kgs. 12 brls.
Antwerp, 34
Barcelona, 315 52
Boksburg, 4
Boston, 200
B. Ayres, 175
Cape Town, 12 cs.
Cartagena, N G., 51 pks.
Cavalla, 7
Ceara, 100
Copenhagen, 10 108 cks.
Corinto, 7
E. London 55 cs.
E. St. Louis, 850 bxs. 7 bdls.
Fiume, 16
Genoa, 69
Gutujewsky, 200
Haifa, 12
Hamburg, 354
Havana, 80
Hiogo, 864
Hong Kong, 20
Jersey, 8
La Guayra, 30
Leghorn, 60
Lisbon, 60
Malaga, 74
Manila, 100
Maracaibo, 11
Melbourne, 56
Naples, 47
Newcastle, 138
New York, 100
Norrkoping, 12
Oporto, 15
Para, 30
Paysandu, 50
Penang, 10
Progresso. 25
Puerto Month, 6
Rotterdam, 82
Salonica, 21
San Sebastian, 60
Seville, 85 16 brls.
Shanghai, 70
Singapore, 10
Stettin, 28
Sydney, 10 15 cks.
Tarragona, 50
Toronto. 35
Valparaiso, 23
Venice, 18
Yokohama, 150
Chemicals *(otherwise undescribed)*
Natal, 3 t. 13 c. £18
Ceara, 2 9
Smyrna, 6 13 1 q. 30
Penang. 1 9 3 10
Christiania, 4 2 4
Bilbao, 5 77
Havana, 7 10 22
Hamburg, 4 cks. 35
Genoa, 15 15 10 20
Barcelona, 10 10 33
Montreal, 20 10 102
Stockholm, 4 10
Melbourne, 4 13 2 57
Rouen, 18 60
Cape Town, 1 5
China Clay —
Baltimore, 364 cks.
Bilboa, 199 bgs.
Bombay, 72
Boston, 2,036
B Ayres, 8
Calcutta, 182
Colombo, 50
Genoa, 100
Georgetown, 120
Guadalajara, 14
Madras, 80
Montreal, 40 147
Philadelphia, 220 250
Piræus, 200
Rio de Janeiro, 30 brls.
Tampico, 14
Three Rivers, 70
Torino, 40
Chloride of Lime—
Boston, 2 t. 2 c. £15
Citric Acid—
St. Petersburg, 2 t. 10 c. £373
Citric and Tartaric Acid—
Bombay, 5 c. 1 q. £19
Coal Products—
Alizarine
Sydney, 7 pks.
Aniline Colour
Hiogo, 30 kgs.
Barcelona, 2 cs.
New York, 10 cks
Lisbon, 1 1
Aniline Dye
Barbadoes, 1 ck.
Aniline Oil
Dunkirk, 2 brls.
Aniline Salt
Antwerp, 5 brls.
Piræus, 15
Bombay, 2 cs.
Carbolic Acid
Brussels, 5 t. £100
Hamburg 1 11 c 1 q. 101
Rotterdam, 5 3 116
Rouen, 5 16 377
Odessa, 6 57
Creosote
Penang, 50 dms.
Creosote Oil
Lisbon. 150 brls.
Pitch
Cavite, 10 brls.
Tar
Manila. 55 dms.
Philadelphia, 100 brls.
Pt. Natal, 50
St. John's, N'fd, 20
Ukaka, 5 cks.
Copper Sulphate—
Havana, 8 c. £10
Galatz, 3 t. 68
Konigsberg, 8 19 2 q. 220
Stettin, 1 2 26
Riga, 3 13 94
Gutujewsky, 10 240
Delhi, 4 4 100
Hamburg, 10 1 12
Tampico, 47 1 010
Nantes, 3 7 77
B. Ayres, 5 2 115
Rouen, 5 10 125
Bordeaux, 59 1 1,353
Antwerp, 5 3 124
Naples, 10 250
Catania, 3 16 95
Hong Kong. 1 25
Victoria, B.C., 4 5 97
Vancouver, 2 10 74
Cream of Tartar—
Fremantle, 3 c. £14
Piræus, 2 10
Disinfectants—
Cape Coast, 10 c £10
Copenhagen, 19 3 q. 7
St. John's, 5 8
Rangoon, 1 cs. 5
Glycerine—
Stettin, 1 t. £44
Bombay, 1 10 c. 75
San Francisco, 24 14 1,149
Rotterdam, 64 11 2,595
Montreal, 19 9 3 q. 964
Hamburg, 2 18 174
Shanghai, 1 60
Leghorn, 1 10 66
Genoa 1 15 69
New York, 29 12 3 836
Guano —
Malaga, 89 t. 11 c. £610
Lead Acetate—
Alexandria, 10 c. £12
Magnesia—
Bordeaux, 25 cs.
Magnesium Chloride -
Nantes, 5 t. 6 c. £20
Manure—
Rouen, 6 t. 1 c. £121
Gd. Canary, 10 123
Manila, 22 13 1 q. 113

Paint—
Accra, 30 kgs.
Alexandria, 940
Antwerp, 14
Bahia, 1 ck.
Barranquilla, 34 cs.
Benguela, 90 pks.
Bilbao, 4 bxs.
Bordeaux, 45
Brisbane, 142
B. Ayres, 46 cks.
Cavite, 11
Copenhagen, 20
E. London, 38 1
Fernando Po, 42
Ferrol, 42
Hamburg, 55
Havana, 4
Ilo Ilo, 10
La Plata, 200
Lisbon, 22
Loanda, 2
Manaos, 5
Manila, 10 25
Maranham, 6
Matanzas, 1
Mayaquez, 3
Mossamedes, 7
M. Video, 10
N. Orleans, 25 tins
Pernambuco, 16
Rio de Janeiro, 50 6
St. Antonia, 25
St. John's, Nfd., 50 4
St. Thome, 22
Sagua la Grande, 4
Shanghai, 60
Teneriffe, 106
Tumaco, 47 pks.
Valparaiso 166 cs
Yokohama, 52 80 dms.

Painters' Colours—
Axim, 34 pks.
Asuncion, 10 cks
Bombay, 1 cs.
Calcutta, 18 1
Cape Hayti, 2
Chicago, 26 150 brls.
Corfu, 2
Manaos, 12
Para, 27 5
35 kgs. 1 cs. 8 tcs.
Sagua la Grande, 2 brls.
S'ntiago de Cuba, 20
Yokohama, 5

Paraffin Wax—
Alexandria, 96 cs.
Palermo, 10 bgs.
Rio de Janeiro, 6

Phosphorus—
Hiogo, 95 cs. £805
Shanghai, 110 805

Potassium Chlorate—
Amsterdam, 1 t. £30
Copenhagen, 3 1 c. 97
Faranagua, 7 4 19
Gutujewsky, 170 14 5,074
Hiogo, 32 10 7,003
Hong Kong, 2 65
Konigsberg, 10 207
Libau, 5 158
Lisbon, 10 16
Philadelphia, 7 10 236
Riga, 5 153
Rio de Janeiro, 4 18 151
Rotterdam, 19 30

Potassium Cyanide—
New York, 5 t. £250

Salammoniac—
Montreal, 9 c. £14
Piræus, 12 19
Rangoon, 2 2 q. 5
Varna, 6 9

Salt—
Antwerp, 50 t.
Assens, 116
Bahia, 149
Bilbao, 50 cs.
Boston, 527 16 c.
B. Ayres, 19 12
Calcutta, 100 cs
Cameroons, 80 13 c.
Degama, 100
Delagoa Bay, 23
E. London, 53 11
Guernsey, 255 cs.
Halifax, 125 5 c.
Hamburg, 48
Matadi, 12 10
Mobile, 300
Montreal, 822 13
Newfahrwasser, 613
N. Orleans, 6 0
Para, 250
1,600 bgs.
Opobo, 2,247
Pt. Natal, 634 t.
Quebec, 24
St. Petersburg, 300
Sydney, 240 bgs.
120 t.
Ukaka, 37 10

Salt Cake—
Delagoa Bay, 91 t. 17 c. £25

Saltpetre—
Ceara, 1 t. 9 c. 3 q. £31
Maranham, 10 11

Sheep Dip—
B. Ayres, 78 t. 5 c. £1,704
Natal, 3 6

Soap—
Algoa Bay, 3 cs.
Amboina, 500 bxs.
Antigua, 80
Antwerp, 237
Axim, 300
Bahia de Caraquez, 500
Barberton, 100
Barbadoes, 400
Batanga, 30
Beira, 150 12
Belize, 101
Behundi, 100
Bombay, 10
Brussels, 3,600
B. Ayres, 100
Calcutta, 105 1,250 bdls.
Callao, 10
Cameroons, 400
Canaria, 476
Cape Town, 2,027 50
Christiania, 75
Copenhagen, 2
Delagoa, 370 10
Dominica, 31
Durban, 500
E. London, 1,625 7
Egwanga, 560
Eloby, 20
Gaboon, 35
Ghent, 100
Gibraltar, 240 52
Guernsey, 135 pks.
Hamburg, 260
Iquitos, 306 80 bdls.
La Plata, 10
Laurium, 2
Loanda, 1 16
Macassar, 500
Madras, 19 23
Malta, 26 70
Manaos, 760
Matadi, 10
Mannheim, 926
Montreal, 50
Mossel Bay, 100
New York, 104 dms.
Old Calabar, 1,064
Opobo, 5,720
Para, 300 1 150 bdls.
Penang. 50
Philadelphia, 50
Pt. Natal, 2,462 5
Rangoon, 890 56
Rio Del Rey, 112
Rotterdam, 100
St. John's, N'fd. 156
Sierra Leone, 100
Singapore, 1,310
Sydney, 4,000
Toronto, 1,550
Transvaal, 80
Valencia, 1
Valparaiso, 2
Vera Cruz, 2
Warre, 1,000
Winnipeg, 1,750
Zanzibar, 200

Soda Ash—
Barcelona, 100 cks.
Bombay, 8
Boston, 480 bgs. 36
25 tcs.
B. Ayres, 156 kgs. 249
Calcutta, 100
Catania, 20 bgs.
Gothenburg, 200
Hiogo, 82
M. Video, 50 brls.
Montreal, 300 239
New York, 500 40
Pernambuco, 15
Philadelphia, 420
Pt. Natal, 3 tcs.
Riga, 300
Rio de Janeiro, 70
Rotterdam, 534
Shanghai. 10
Sherbrooke, 800
Smyrna, 550
Toronto, 1,007
Venice, 600 150
Vera Cruz, 25
Yokohama, 334

Soda Crystals—
Alexandria, 50 cks.
B. Ayres, 300 kgs.
Cape Town, 50 20 brls.
Gibraltar, 30
Jersey, 20
New York, 56
Peterboro, 85 pks.
Pt. Natal, 7
Til-onberg. 3 cks.

Sodium Acetate—
Vera Cruz 2 cks.

Sodium Bicarbonate—
Amsterdam, 30 kgs.
Antwerp, 50
Barcelona, 254 10 cks.
Bombay, 125 10
B. Ayres, 200
Catania, 10 bgs.
95 kgs. 4
Fiume, 15
Genoa, 85
Galatz, 30 5
Ghent, 20
Gutujewsky, 2,000 pks.
Jersey, 5 bgs.
Karachi, 50 kgs.
Kobe, 150
Malaga, 75
Melbourne, 300
M. Video, 45
Montreal, 25 bgs.
Naples, 87 kgs.
Palermo, 10 2 cks.
Peterboro, 40 dms.
Pt. Elizabeth, 20 bgs.
Rosario, 80 kgs. 40 cks.
Singapore, 5
Winnipeg, 200
Yokohama, 300

Sodium Bichromate—
Vera Cruz, 20 kgs.

Sodium Carbonate—
Boston, 56 brls.
New York, 24 cks.

Sodium Chlorate—
Gutujewsky, 200 kgs.
Hamburg, 4 cks.
Philadelphia, 50
Rotterdam, 80
Stettin, 100

Spent Oxide—
Nantes, 102 t. 8 c. £256

Starch—
Lisbon, 7 cks.

Strontia—
Malta, 2 cks £7

Sulphur—
Boston, 320 t. 5 c. £1,364
Calcutta, 6 28
Halifax, 10 8 54
Havana, 11 4
London, Ont., 3 10 20
Montreal, 357 3 1,502
Peterboro, 1 10 7

Sulphuric Acid—
Beira, 1 t. 17 c. £71
Pernambuco, 6 5
Rangoon, 6,000 lbs. 29
30 cs.
Teneriffe, 6 c. 5

Superphosphates—
Barcelona, 50 t. £122
Genoa, 49 5 c. 1 q. 100
La Pallice, 733 4 2 1,942
Nantes, 78 14 3 139
Seville. 573 14 1,656
Teneriffe, 15 50
Valencia, 270 9 626

Tannic Acid—
Lisbon, 4 c. 3 q. £24

Tartaric Acid—
Fremantle, 2 c. £13
Havana, 1 8
Habana, 15 58

Varnish—
Barcelona, 6 cks.
C. C. Castle, 2 cs.
Genoa, 96
Landana, 4 dms.
Manila, 2
Sydney, 5 2
Toronto, 1

White Lead—
Algoa Bay, 18 kgs.
Calcutta, 100
Pt. Natal, 120
Pernambuco, 10 cks.

Zinc Chloride—
Baltimore, 26 t. 8 c. 3 q. £271

Zinc Chloride (Solid)—
Bombay, 1 t. 15 c. £15

MANCHESTER.

Week ending October 4th.

Calcium Chloride—
Sydney, 35 dms.

Caustic Soda—
Melbourne, 4 cks.

Coal Products—
Aniline Colours
Belgium, 4 kgs.
Germany. 4 cks.
Aniline Oil
Russia, 40 dms.
Aniline Salt
Russia, 20 cks.
Carbolic Acid
Germany, 75 cks.
Naphtha
Melbourne, 50 tins
Naphthol
Germany, 12 cks.

Copperas—
Melbourne, 14 brls.

Dyestuffs—
Indigo
Melbourne, 2 cs.

Gamma Acid—
Germany, 6 cks.

Glue—
Holland, 12 cks.
Melbourne, 1

Paint—
Bombay, 7 kgs.

Sodium Naphthionate—
Germany, 46 cks.

Tallow—
Bombay, 15 brls.

HULL.

Week ending September 30th.

Alkali—
Christiania, 1 ck.
Copenhagen, 1
Stettin, 134 bgs.

Ammonium Sulphate—
Legborn, 496 bgs.

Caustic Soda—
Danzig, 69 dms.
Genoa, 50
Reval, 115 cks. 125

Chemicals (*otherwise undescribed*)
Alexandria, 12 pks.
Amsterdam, 99 cks.
Antwerp, 16
Christiania, 1,341 slbs.
Copenhagen, 16 12 bbls.
Danzig, 6 62 pks.
Gothenburg, 3 5 cs.
557 slbs.
Hamburg, 16 5
Hango, 10
Helsingfors, 7
New York, 51 15
Rotterdam, 15 40
468 bgs.
Stettin, 15 cks. 6 6 pks.
Stockholm, 2
St. Petersburg, 2 50

Coal Products—
Pitch
Antwerp, 130 t. (and a qty.)
Tar
Hamburg, 17 cks.
Rotterdam, 14
Stettin, 5

Cottonseed Oil—
Amsterdam, 19 t. 1 c.
Antwerp, 2 2
Bremen, 3
Gothenburg, 1 17
Hamburg, 4 7
Konigsberg, 2 10
Rotterdam, 5 5
Stockholm, 10 1

Dyestuffs (*otherwise undescribed*)
Danzig, 9 cks.
Genoa, 1 cs.
New York, 15

Guano—
Dunkirk, 100 t.

Linseed Oil—
Christiania, 2 t. 13 c.
Christiansand, 1 15
Copenhagen, 2 13
Drontheim, 18
Hamburg, 1 12
Rotterdam, 5 1

Manure—
Amsterdam, 20 cks.
Genoa, 167 t.
Hamburg, 100
Leghorn, 50
Libau, 100

Mineral White—
Stettin, 50 bgs.

Paint—
Alexandria, 3 cks.
Bergen, 1 cs.

Painters' Colours—
Amsterdam, 1 ck.
Antwerp, 35
Bergen, 5 cs.
Bremen, 16 dms.
Christiania, 18 1
Copenhagen, 41 1 20
Danzig, 10
Drontheim, 10 20
Dunkirk, 3
Genoa, 10
Ghent, 4 36
Gothenburg, 10
Hamburg, 22
Harlingen, 3
Helsingfors, 3 pks.
Konigsberg, 50
Leghorn, 10
New York, 349
Rotterdam, 12 2 5 dms.
Ronen, 6
Stettin, 2
Stockholm, 2
St. Petersburg, 150
San Francisco, 15

Tallow—
Helsingfors, 17 cks.

Varnish—
Danzig, 8 cks. 2 pks.
Genoa, 2
Harlingen, 1
Helsingfors, 1
Marseilles, 3 cs.
Riga, 1
Rotterdam, 6
Stettin, 15
Stockholm, 2

GLASGOW.

Week ending October 5th.

Ammonium Carbonate—
Bergen, £20

Ammonium Sulphate—
Barcelona, 110 t. 2 c. 1 q.
Barbadoes, 76 15
Demerara, 164 15
France, 90 11 2
Genoa, 176 7 2
Hamburg, 50 13
Italy, 59 14
Rotterdam, 50 15
Spain, 244 1
Torre del Mar, 19 6
Valencia, 235 16 3

Boracic Acid—
Melbourne, £245

Castor Oil—
St. John's, N'fd., £29

Chemicals *(otherwise unaescribed)*
Lisbon, 5 t. 13 c.
Rotterdam, £51 10s.
Trinidad, 49

Coal Products—
Alizarine
Lisbon, £30
Creosote Oil
Russia. £27 10s.
Naphtha
France, £115
Pitch
Caen, 260 t.
Canada, £231
Hamburg. 10 5 c.
Tar
Bergen, 6 t. 2 c.
Danzig, 71
Rangoon, £45
Russia, 240

Dextrine—
Italy, £140

Dyestuffs *(otherwise unaescribed)*
Barcelona, £257
Belgium, 65 14s.
New York, 41
Spain, 95

Dyestuffs—
Cutch
Genoa, £58
Extract
Bergen, £32
Canada, 289
Portugal, 30
Fustic Extract
Canada, £42

Farina—
Oporto. £95

Ferro Manganese—
Russia. 262 t. 16 c. 2 q.

Ferro Silicon—
Russia, 110 t.

Gelatine—
Canada, £87
Philadelphia, 196
U.S.A., 721

Glauber Salts—
Stockholm, £4

Glue—
Barcelona, £52
Rangoon, 40

Lead Acetate—
Bombay, £102
Canada. 24

Lead Nitrate—
Canada, £90
Italy, 100

Linseed Oil—
Alexandria, 8 t. 17 c. 1 q.
Antwerp. 1 1
Mauritius, 1 6
St. John's, N'fd , 1 13 1
Sydney, 1 18

Litharge—
Antwerp, £20
Bombay, 28

Logwood—
Canada, £29
Portugal, 26

Magnesium Sulphate—
Christiania. 1 t.

Manganese—
Antwerp. £110

Manganese Oxide—
U.S.A., £105

Manganese (Recovered)—
Rotterdam, £134

Manure—
Durban, £23
France, 25 t.
Genoa, 19 14 c.
Malaga, 101 8
Sicily, 50 4 3 q.

Paint—
Alexandria, £19
Canada, 22
Christiania, 8 c.
Mauritius, 24
Rangoon, 260
St. John's. N'fd., 110
Sydney, 30

Painters' Colours—
Bombay, £129
Demerara, 65
Matanzas, 25
Mauritius, 7
U.S.A., 77

Paraffin Wax—
Antwerp, £35
Barcelona, 612
Cape Town, 70
Christiania, 60
France, 144
Genoa, 444
Italy, 1,896
Leghorn, 229
Marseilles, 64
Odessa, 130
Russia, 488
Sicily, 180
Spain, 290
Stockholm, 608
U.S.A., 259

Potassium Bichromate—
Alexandria, £28
Amsterdam, 657
Antwerp, 23
Barcelona, 517
Bombay, 5 t. 10 c.
Danzig, 9
Genoa, 252
Portugal, 29
Spain, 314
Stockholm, 7

Potassium Cyanide—
Adelaide, £224
Marseilles, 224
Sydney, 171
U.S.A., 5 t.

Rosin Oil—
Algoa Bay, £58

Salammoniac—
Italy, 14 t. 10 c.

Soap—
Bombay, 3 t. 4 c. 2 q.
E. London, 2 10
Johannesburg, 5

Soda—
Rangoon, 2 c. 1 q.

Sodium Bichromate—
Alexandria, 2 c. 2 q.
Barcelona, £549
Bombay, 37
Genoa, 291
Spain, 48
Stockholm, 28
St. Die, 5 t. 1 1 q.

Stannous Chloride—
Trinidad, £117

Starch—
Lisbon, 4 t. 19 c. 1 q.

Sulphuric Acid—
Rangoon, £331

Superphosphates—
Torre del Mar, £394
" 394 t. 16 c. 1 q.

Tallow—
Alexandria, 1 t. 7 c. 3 q.
Italy, 10 3 2
Oporto, 1

Turpentine—
Alexandria, £59

Yarnish—
Sydney, £47 12s.

White Lead—
Brisbane, £138
Rockhampton, 57

TYNE.

Week ending September 30th.

Alkali—
Amsterdam, 56 t. 3 c. 3 q.
Christiania, 1 15
Gothenburg, 5 2 2
Rotterdam, 9 3
St. Petersburg, 27 2

Ammonium Sulphate—
Barceolna. 25 t.

Antimony—
Amsterdam, 4 t.
Barcelona, 1
Christiania, 1
Gothenburg, 1
Hamburg, 15
New York, 33
Rotterdam, 1
St. Petersburg, 5

Arsenic—
Gothenburg, 1 t. 9 c.

Barium Binoxide—
Antwerp. 10 t. 15 c. 1 q.

Barium Carbonate—
Hamburg, 149 t. 18 c. 2 q.

Blanc Fixe—
St. Petersburg, 2 t. 4 c.

Bleaching Powder—
Amsterdam, 13 t. 15 c. 2 q.
" 17 6 2
Bergen, 10 4
Christiania, 2 16
Gothenburg, 5 2
Hamburg, 10 2 1
Helsingfors, 49 8 2
New York, 59 12
Rotterdam, 17 4
St. Petersburg, 29 19 2
Svendborg, 4 19 2

Caustic Soda—
Antwerp. 9 t. 17 c. 1 q.
Barcelona, 21
Bergen, 69 6
Christiania, 6 8
Copenhagen, 2 18
Gothenburg. 4 18 2
Helsingfors, 2 18
New York, 100 8 3
St. Petersburg, 100 2 1
Venice, 30

Coal Products—
Carbolic Acid
Svendborg, 12 c. 1 q.

Copperas—
Bergen, 18 c. 3 q.

Ferro Silicon—
New York, 100 t.

Fluor Spar—
New York, 102 t. 6 c.

Magnesia—
Barcelona, 12 . 16 c.
Genoa, 3
Rotterdam. 1 17

Magnesium Carbonate—
St. Petersburg, 1 t. 5 c.

Manure—
Barcelona, 78 t.

Paint—
Antwerp, 16 c.
Bergen, 1 cs. 18 dms.
Copenhagen, 12 c.
Rotterdam. 1 t. 8 23

Painters' Colours—
Hamburg, 26 cks.
Rotterdam, 10 dms.

Red Lead—
Amsterdam, 1 t. 4 c. 1 q.
Copenhagen, 1 13 3
Genoa. 5 1
Gothenburg, 13 2 3
Hamburg, 2 13 3
Helsingfors, 2

Soda—
Amsterdam, 3 t. 11 c.
Christiania, 4 8
Genoa, 6
Gothenburg, 1 19 1 q.
Helsingfors, 8 1 2
Rotterdam, 10 6

Soda Ash—
Antwerp. 1 ck.
Christiania, 1 t. 9 c.
Gothenburg, 79 2 2 q.

Sodium Hyposulphite—
New York, 33 t. 7 c. 1 q.

Sulphur—
Gothenburg, 25 t.
Helsingfors, 100 11 c. 3 q.

Tallow—
Hamburg, 5 t. 2 c. 2 q.

White Lead—
Copenhagen, 2 t. 1 q.

Witherite—
St. Petersburg, 60 t.

GOOLE.

Week ending September 27th.

Chemicals *(otherwise undescribed)*
Antwerp, 1 cs. 10 dms.
Hamburg. 12 crbys. 2 2

Coal Products *(otherwise undes.)—*
Amsterdam, 162 cks.
Antwerp, 52 3 cs.
Boulogne, 36 2
Hamburg, 3 1

Coal Products—
Benzol
Rotterdam, 11 dms.
Pitch
Antwerp, 512 t.

Dyestuffs *(otherwise undescribed)*
Hamburg, 60 bgs. 1 cs.
Rotterdam, 5 cks.

Manure—
Antwerp, 201 bgs.
Rotterdam, 280

Painters' Colours—
Amsterdam, 1 ck.
Boulogne, 2 4 cs. 2 dms.
Calais, 4
Ghent, 1
Rotterdam, 6

GRIMSBY.

Week ending September 30th.

Alkali—
Hamburg, 45 cs.

Ammonium Sulphate—
Rotterdam, 250 bgs.

Caoutchouc—
Esbjerg, 2 pks.

Chemicals *(otherwise undescribed)*
Dieppe. 12 cs.

Coal Products *(otherwise undes.)—*
Dieppe, 2 kgs. / 112 cks.
Hamburg, 2 84 cs.

Manure—
Esbjerg, 2,350 bgs.

Painters' Colours—
Antwerp, 3 cks. 3 cs. 3 pks.
Rotterdam, 7

PRICES CURRENT.

WEDNESDAY, Oct. 11, 189—9

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may va—ary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	5/9 &	8/3	
,, Glacial .. .. ,,		35/-	
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	22	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	35/- &	33/-	
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	4
,, Sulphate (grey) London .. .. per ton	11	7	6
,, ,, (grey) Hull .. .. ,,	11	5	0
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. ,,	40/-	to	60/-
Bleaching Powder, 35 % .. .. nett ,,	5	5	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	9
,, 50/90 ,, ... ,,	0	0	10¾
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	13	6
Solvent Naphths, 90% at 160° .. .. per gallon	0	1	2½
Copper .. .. per ton	75	18	9
,, Sulphate .. .. ,,	25	7	6
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	32	10	0
,, (distilled S.G. 1260°) .. .. ,,	50	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	17	15	0
,, Litharge Flake (ex ship) .. .. ,,	19	17	6
,, Acetate (white ,,) .. .. ,,	22	15	0
,, ,, (brown ,,) .. .. ,,	18	0	0
,, Carbonate (white lead) pure .. .. ,,	23	0	0
,, *Nitrate* .. .. ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	5	0
,, ,, (grey) (ex ship) .. .. ,,	8	0	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	20	0	0
Linseed .. .. ,,	23	10	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	16	15	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % .. .. per ton	23	15	0
,, ,, ,, 75/80 % .. ,,	19	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	12	15	0
,, Nitrate (refined) .. .. ,,	20	10	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	8
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	2¾
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	2	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	15	0
,, Acetate (ex-ship) .. .. ,,	13	15	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¼
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	5	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	0	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	10	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	10	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	7	6
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	½
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	5	0
,, Prussiate .. .. per lb.	0	0	5
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	6	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	28	0	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	149	0	0
Zinc (Spelter) .. .. ,,	22	12	6
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

CHEMICAL TRADE JOURNAL

AND

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ADVERTISEMENTS.

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isements intended for insertion in the current week's issue ach the office by **Thursday morning** at the latest.

CURRENT TOPICS.

THE VINEGAR PUZZLE AGAIN.

IT is anything but an easy matter to secure an unanimous expression of opinion from food experts as to what is the true and only genuine definition of vinegar. The question is one which has led to considerable difficulty in the institution of prosecutions for the sale of coloured acetic acid, and in the face of the case which was heard in the Potteries this week the existing definition needs further amendment.

According to the case for the prosecution, genuine vinegar must be the product of alcoholic and vinous fermentation. Now, Messrs. Jones and Hehner certify the vinegar in question as not being genuine because it did not contain many things that ought to be in vinegar prepared in the way they set forth. In consequence, they held it to be coloured acetic acid.

Returning to their definition, however, the defendants proved that the vinegar had been made from pure acetic acid of vinous origin, and so being the product of alcoholic acetous fermentation was genuine vinegar. Moreover, this claim was supported by the evidence of Professor Attfield and Dr. W. Hind.

In the light of the evidence given by the latter gentlemen, the Stipendiary dismissed the case (together with another summons for the same offence), and allowed the defendants costs to the tune of close on £20.

It is evident, therefore, that, whereas the existing definition answers very well to suppress the sale of coloured acetic acid obtained from wood, &c., as vinegar, it does not meet the case when coloured acetic acid, which happens to be of vinous origin, is sold as vinegar.

The present case undoubtedly demonstrates this, since the analysis showed the absence of those products which go to make genuine vinegar when prepared in the old-fashioned way, and yet the definition of "vinegar," as relied upon by the prosecution, allowed this obviously imperfect product to slip through the meshes of the legal network of the Foods and Drugs Acts. The point is a nice one, and we must admit we do not see our way at the moment to give an efficient definition of vinegar which is *concise*.

THE LONDON SEA-WATER SCHEME.

Slowly but surely, says the seer, or at least so the short-hand reporters of their time chronicled the utterences of the fathers of proverbs, and we hope they will be justified of their saying in regard to the progress of the London Sea-Water Supply Co., Ltd.

Nearly four years ago a scheme by which the "briny" was to be brought to London was sanctioned by Parliament, and last December we gave the details of the scheme propounded, and then about to be carried out, by the above-named company. Our esteemed contemporary, the *Builder* has recently been good enough to confirm these details, and while announcing

the formation of the company also tells us the direction in which the branch services are to run. From Cromwell Road, South Kensington, branches will run to Paddington, Marylebone, and the Strand, while from Charing Cross a conduit will serve Westminster.

We are pleased to know that the Company formed last year is alive, and that there is some prospect of progress. Now the *Builder* has got wind of the scheme, perhaps they will be able to push things along, so that some of the overdraft on the Future Account may be paid off and something placed to the Credit Account of the Past.

THE INTERNATIONAL SCIENCE CONGRESS.

Congresses of one kind or another are the order of the day just at present. The latest proposal is to constitute a sort of cosmopolitan Parliament of Science in connection with the Paris Exhibition.

As far as we can learn, this is something distinct from the Witenagemote of Science, referred to by the President of the British Association, as about to be held at Wiesbaden this month, and the question arises whether between specialising and generalising science congresses, the thing is not in danger of being over-done. Doubtless, there are hundreds on the look-out for a plausible plea by which to justify a trip to the Exhibition; but is it advisable to add a Science Congress to the existing category of excuses?

Frequent international co-operation is desirable and beneficial, so much so that it can scarcely do harm, but all the same there are dangers and drawbacks to be avoided. Among these, the tendency towards superficiality stands first and foremost if the gathering is to have any real influence for good.

At present the proposals for this Parisian "meet" appear to be so sketchy as to favour the assumption that it will not be productive of anything better than an enjoyable interchange of personal opinions.

CHEMICAL AND WOOD-PULP TRADE OF GOTHENBURG.

THERE exists some apprehension in the Gothenburg district that the many new mills, of which some have already started, and others are soon expected to begin work, will increase the output to such an extent that the market will not be able to absorb the production, but, contrary to expectation, this predicted decline has not yet been felt.

A considerable increase in the consumption of chemical wood-pulp must be the cause of the brisk demand with which this article met throughout the past year. The quotations during the year, f.o.b. at Swedish port, subject to quality and time of delivery, were as follows:—

	Prices, f.o.b. From—			To—		
	£	s.	d.	£	s.	d.
Sulphite, unbleached	7	15	7	8	6	6
Sulphate ,, ...	7	4	5	7	15	7

Mechanical wood-pulp occupied a poor position with declining prices due to a considerable export to Europe from Canada and the United States of America, which gave rise to a reckless speculation, with the object of reducing the prices, particularly for moist pulp, to absolutely unprofitable figures.

Upon an investigation being made as to the position and requirements of this industry, it appears that there are prospects of Scandinavia resuming its leading position in regard to this article. During the latter part of the year an improvement of prices was perceptible, and there is every inducement for a further advance, and it is believed that the manufacture of ground wood-pulp in this country will again prove a profitable industry. The production in Sweden has not of late been increased in any marked degree. The quotations during the year, f.o.b. at Swedish port, subject to quality and time of delivery, were as follows:—

	Prices, f.o.b. From—			To—		
	£	s.	d.	£	s.	d.
Mechanical, dry	3	6	8	3	14	5
,, moist	1	11	1	1	15	7

Chemical Imports.—Imports have been gradually increasing of late years. In 1898 the principal commodities which increased were alkali, nearly 800 tons; coal, over 31,000 tons; cotton, over 1,700 tons; fertilizers, over 5,700 tons.

Guano and Sulphur—The guano and oil mills have, as was the case in the previous year, been almost at a standstill, and the question is whether in future the herring can be obtained at a price which will enable the mills to procure their raw material. Sulphur from Sicily is a new article of import to Halmstad, a mill, lately started in this neighbourhood for the manufacture of chemical wood-pulp, being the consumer.

The following is a summary of the chief articles imported into Gothenburg during 1897 and 1898:—

Articles.		Quantity. 1898.	1897.
Alkali	Tons	5,022	4,234
Candles	Cwts.	240	280
Cement	,,	19,280	18,320
Colours—			
Aniline	,,	4,840	3,580
Indigo	,,	820	920
White lead and zinc ..	,,	16,860	14,100
Chloride of lime	,,	23,120	16,360
Chlorate of potash	,,	2,660	4,080
Chemical preparations	Value £.	9,675	8,475
Fertilisers	Tons	32,679	26,967
Glauber salts	,,	4 343	4 364
Glue	Cwts.	1,104	2,360
Gypsum	Tons	1,296	981
Oilcake	,,	4,750	5,491
Oils—			
Linseed and rapeseed ..	,,	530	697
Petroleum and naphtha ..	,,	8,415	14 743
Train	,,	315	460
Other kinds ..	,,	5,773	4,825
Oleine	,,	289	278
Paraffin	,,	663	702
Potash	Cwts.	5,805	8,860
Resin	Tons	1,928	1,825
Saltpetre	Cwts.	1,440	1,600
Salt	Tons	21,846	22,054
Sulphur & flowers of sulphur	,,	6,636	5,028
Tallow	Cwts.	56,360	34,600

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for Aug, 1899. The total shipments were 100,215,783 gallons, compared with 97,457,340 gallons in 1898. The total for the eight months ending August, 1899, were 622,110,869 gallons, against 677,078,440 gallons in the same period of 1898. The details of the shipments are as follows:—

			Gallons.
		CRUDE PETROLEUM.	
Total,	August,	1899	16,149,243
,,	,,	1898	14,465,709
		NAPHTHAS.	
Total,	August,	1899	1,915,201
,,	,,	1898	1,208,354
		ILLUMINATING.	
Total,	August,	1899	75,930,790
,,	,,	1898	72,388,455
		LUBRICATING AND PARAFFIN.	
Total,	August,	1899	5,853,805
,,	,,	1898	6,111,640
		RESIDUUM.	
Total,	August,	1899	366,744
,,	,,	1898	3,283,182

SOCIETY OF CHEMICAL INDUSTRY.—*Nottingham Section.*—The first meeting of the session will be held on Wednesday, October 25th, 1899, in Room No. 23, University College, at 7 p.m. The following paper will be read—"Further notes on the action of the dung bate," by J. T. Wood. The secretary will be glad to receive any suggestions as to subjects for discussion at these meetings, or the offer of any paper or communication from persons interested. Members are reminded that they are at liberty to introduce friends at the meetings, who may bring forward communications and take part in the discussion.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Dry Distillation of Wood. F. Schmidt. 19,741. October 2.
Improvements in Coke Ovens. G. Hilgenstock. 19,757. October 2.
Manufacture of Hydrosulphites and the Production of Solid Sodium Hydrosulphite. B. Willcox. 19,762. October 2.
Electro-chemical Process for Cleaning Metal Surfaces. The Vereinigte Electricitats-Actiengesellschaft and J. Klaudy. 19,785. October 3.
Rendering Moulds Conducting in the Electrolytic Bath. H. J. Sheldon. 19,825. October 3.
Boiler Tube Cleaners. W. D. Forsyth and E. T. Bell. 19,833. October 3.
Wash Towers for Treating Producer Gases. E. J. Duff and The United Alkali Company, Ltd. 20,001. October 5.
Paint Mixer. J. W. Drummond. 20,040. October 5.
Process and Composition for Facilitating the Combustion of Fuel. F. P. Vallet-Rogez. 20,097. October 6.
Purifying Blast Furnace Gases. A. Hebelka. 20,150. October 7.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in or connected with the Production of Lead Oxide and in the Means or Apparatus employed therein. Matthews' Lancashire, Cheshire, and North Wales District White Lead Company, Ltd., S. Pope, and G. V. Barton, all of Old Quay, Runcorn. Eng. Pat. 17,178. August 9, 1898.

A current of air and steam is caused to impinge on the surface of molten lead. The feature of this invention is the pot in which this is carried out. It is circular, and fitted with an agitator beneath the molten lead. A curtain or baffle extends from the central shaft to the edge of the pot, forming a radial arm as it were, which just skims the surface of the molten lead. When the submerged agitator rotates, a wave is formed, on the surface of which is a layer of oxide. As the wave beats against the baffle, the oxide is thrown up in a cloud, and carried away along with the air and steam through a conveniently disposed exit pipe. The oxide is allowed to deposit in collecting chambers. In a similar way, rough litharge may be converted into fine oxide, the litharge being floated on the surface of the lead. There are eleven figures.

Improvements in Treating Cupric Sulphate Solutions. O. Hoffmann, Ash-street, Argentine, Kansas, U.S.A. 13,120. June 27, 1899.

The copper matte or ore to be treated is first pulverised and oxidised by roasting, and then leached with hot dilute vitriol. The resulting solution, which contains much sulphate of iron, is placed in a tower or vertical tank, in which it is heated to 80° C., and kept in agitation by a current of compressed air. At this stage, powdered cupric oxide is added in sufficient quantity to precipitate the iron according to the following equation:—$2\ FeSO_4 + O + 2\ CuO = Fe_2O_3 + 2\ CuSO_4$. In this way, the iron and other impurities are precipitated, together with a little basic sulphate of copper. The crude solution must be as near neutral as possible before being treated in this way. The liquor and precipitate are run into an agitating tank, and thence to a filter-press through a pressure tank, yielding a pure solution of copper sulphate. The basic sulphate of copper is extracted from the precipitate by treating with a 2% solution of weak sulphuric acid, which practically does not attack the oxides present.

A Process for the Production of Oxide of Zinc and Zinc Carbonate from Ores or other Materials containing Zinc. G. Rigg Tudor Villa, Bryn-road, Swansea. Eng. Pat. 21,366. October 25, 1898.

The zinc-bearing ore is roasted or otherwise treated so that it shall only contain metallic zinc and oxide or carbonate. It is then leached in a solution of ammonium carbonate or a mixture of ammonium carbonate and hydrate. Now, it has been determined by experiment that for a given amount of ammonia present the maximum dissolving power of the solution is attained when a certain amount of carbon dioxide is present. The solution is therefore prepared accordingly. By further increasing the quantity of carbon dioxide present in the solution, the dissolved zinc oxide or carbonate is precipitated. To render the solution fit for leaching again, the excess of carbon dioxide is removed in any suitable way. Any iron in the solution, prior to the precipitation of the zinc oxide, must be removed with hydrated oxide of tin, before increasing the amount of carbon dioxide.

Improvements in the Reduction of Aluminium by Electrolysis. F. A. Gooch, 164, Edwards-street, New Haven, Connecticut, U.S.A. Eng. Pat. 16,535. August 15, 1899.

A bath of sodium fluoride and aluminium chloride is prepared by fusing the two in a crucible. In the latter, sleeves are provided for the passage of hollow carbon anodes through which the vapour of carbon disulphide or other sulphur compound is introduced. On passing a current of low voltage (0·9 volt.) the aluminium sulphide formed is decomposed and metallic aluminium deposited on the cathode, i.e., the carbon lining of the crucible. The gaseous products given off are allowed to escape through an inverted funnel, the mouth of which is sealed by immersion in the molten bath. There are two figures.

Improvements in the Manufacture of Artificial Manure. A. Wenck, 36, Kaiserstrasse, Magdeburg, Germany. Eng. Pat. 12,233. June 17, 1899.

This is a modification of patent 4,714 (C. T. J., No. 639, p. 115), whereby the dried beetroot wash is made serviceable as a manure, without the addition of the nitro-bacteria powder. This end is attained by adding silica in sufficient quantity to counteract the excessive alkalinity of the dried product due to the large amount of caustic lime used in the desiccation of the molasses wash.

Improvements in the Manufacture or Production of Lead-lined or Lead-coated Pipes and Tubes. H. W. Davis, Hallein, bei Salzburg, Austria. Eng. Pat. 23,179. November 4, 1898.

For lead lined pipes the lead is formed on a mandrel by any of the familiar methods, and the pipe stiffened by the electrolytic deposition of copper. When lead coated pipes are required the lead is deposited on the copper by electrolysis.

SOCIETY OF CHEMICAL INDUSTRY

SCOTTISH SECTION.

THE new session of this section began on Wednesday, October 11th, when members met in the hall of the Young Men's Christian Association, 14, South St. Andrew-street, Edinburgh. In the absence of the chairman, Mr. George T. Beilby presided. By arrangement the meeting was devoted exclusively to questions of direct interest to the great industry of paper making. The first item was a paper by Mr. C. F. Cross, entitled "A Paper Maker's Research Laboratory," which provided a description of the actual working functions of the purely scientific man in a paper mill. Mr. R. C. Menzies, paper-maker, Inveresk Mills, Musselburgh, followed, dealing chiefly with the wastes of the manufacture. He said that these wastes divided themselves into three classes—namely, the waste of chemicals in solution, the waste of materials which the paper maker desired to retain in the fabric of his paper, and of such materials as were the result of the working of the subsidiary processes connected with the manufacture of paper. Mr. J. G. F. Lowson, of Lasswade, Edinburgh, was also on the agenda list, his paper dealing with the following problems in the craft:—"Can the effect which is apparently produced by boiling esparto grass, when the water contains a certain quantity of salt, be got over?" "With hard water, containing about 80 grams of salt to the gallon, about 20 lbs. of 70 per cent. caustic to the cwt. of grass are found to be necessary, and the grass throughout remains 'blay' and dead in colour, and never bleaches to a sparkling white. Can this be remedied?" "Why is it that when perfectly white and new linen rags are boiled with caustic soda they come out of the boiler stained and brown? Is this caused by a decomposition and subsequent loss of fibre, or how does it arise?" Mr. Robert Irvine, of Royston, Edinburgh, subsequently dealt with the difficulty to printers which has resulted from the introduction of paper of a highly glazed surface. According to present arrangement (subject to revision) the meetings of the section during the session now just commenced will, as usual, be held chiefly in Glasgow and Edinburgh; but the recent practice of occasionally resorting to special centres will be kept in view, and there is one departure of this sort, tabled for a part of the country never hitherto touched by any gathering of the society.

FIRE TESTS WITH GLASS.—The British Fire Prevention Committee of 1, Waterloo Place, Pall Mall, London, have issued a report on the fire resisting properties of skylights glazed with wire glass made by Messrs. Pilkington Bros., Ltd., of St. Helens. The test lasted half an hour, during which time the temperature reached 1,500° F. Water was played on to the glass after fifteen minutes which caused it to bulge but not give way. At the end of the half hour water was again turned on but the glass was intact, though cracked, and the fire did not pass through.

NOTES ON FOREIGN TRADE.

MEXICO.

THE imports from Great Britain in 1898 amounted to £1,608,888., as against £1,477,722 in 1897, showing an increase of £131,166. In the previous year, however, the imports represented 19 per cent of the total imports, whereas they now only bear the proportion of 17¼ per cent. to the total.

The imports from the United States also show a decrease of ¼ per cent. as against 1897, although their value is £4,444,472, as against £3,867,025 in 1897, showing an increase of £577,447. The proportion they now bear to the total is 48¾ per cent

The value of the imports from France shows a falling-off in the proportion they bear to the total trade of 1 per cent., whereas the value is increased by £98,409. The value of the imports of 1898 was £1,092,751.

Germany is now coming to the front as a successful competitor for the trade in Mexico, and at present shows a value of £1,049,734. as against £772,356. in 1897, thereby increasing its proportion to the total from 10 to 11½ per cent.

The increase in the value of chemical products in 1898 amounted to more than £30,000 over those for 1897.

Caustic soda and potash represent a value of more than £4,000. above what was imported in 1897. This increase in the imports of these articles is due to the cotton mills, bleaching works and soap factories that have lately been established in the city of Mexico, Guadalajara, Monterey, and several others in the State of Coahuila, owned by a syndicate known as the "Compania Industrial Jabonera de la Laguna." The production of this article by the chemical factories in this city is not nearly enough for the consumption, and, therefore, has to be imported.

The remainder of the increase is to be found under the very extensive denomination "miscellaneous drugs and chemicals," which covers the imports of patent drugs and medicines; and other special preparations not otherwise specified.

Although there was a falling-off in the quantity of dye-woods exported in 1898, the value showed an increase of nearly £9,000 over those of 1897.

BULGARIA.

Varna.—The largest items, such as sodas, alums, and ammonias (about one-third to one half of the whole) are chiefly of British origin, but citric acid and most of the other chemicals come from Austria.

Austria, followed by Germany, heads the trade in dyes, paints, varnish, &c., of £7,000., which was to be expected, especially in the case of aniline dyes, but it seems strange that the two countries should furnish more Bengal and Madras indigo than the United Kingdom, unless, indeed, the new synthetic product manufactured by the Baden Chemical Works has already found its way to this market.

Russian petroleum represents three-fourths of the value under the head of resins, gums, mineral oils, &c. Most of the gum olibanum, the incense used in church ceremonies, but little of any other gums, resins, tars, &c., is imported from London.

The total value of imports under the head of vegetable oils, fats, wax and products is £27,365., or a third less than in 1897, but it is only in linseed oil that the United Kingdom is interested, and this to the extent of about £600.

Turkey supplies the major portion of the olive and other vegetable oils, about £18,000., and about four-fifths of the soap, £5,000., this being the common Cretan kind sold here at 21s. per cwt., while Belgium and Holland furnish the stearine candles, of which, however, not much over £1,000. is imported.

Notwithstanding that their manufactures are protected, the Bulgarian soap boilers do not seem to make much headway, and, in view of the probable diminution of imports from Crete, owing to the olive trees having been cut down and destroyed in many places, there might be an opening for British manufacturers, were it not that the religious susceptibilities of the large resident Mussulman population prevent their buying any other soap than that made from olive oil. As it is, Greece proper will probably reap the benefit and largely increase their present imports of that description.

Sofia.—The following is a comparative summary of the imports of chemical products.

Description.	1896.		1897.		1898.		Percentage *in Value*, supplied by the Principal Importing Countries.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	Met. tons.	£	Met. tons.	£	Met. tons.	£	
Soda of all kinds	647	6,669	755	7,221	551	4,787	United Kingdom, 61-66-51; Austria-Hungary, 19-11-22; Belgium, 10-8-12; France, 5-8-6; Turkey, 2-4; Germany, 2-5-3.
Caustic soda	39	456	..	3	160	1,702	United Kingdom, 100-62; Austria-Hungary, 0 26; Germany, Turkey, France.
Citric acid and citric salt ..	33	4,524	43	5,236	46	5,144	Austria-Hungary, 81-71-78; France, 6-18-14; Germany, 10-5; United Kingdom, 2-3-1; Belgium, &c.
Other chemical products ..	1,042	13,252	1,103	14,576	1,011	15 037	Austria-Hungary, 39-35-44; United Kingdom, 31-35-21; Germany, 14-7-19; Belgium, 3-9; France, 10-6; Italy, &c.
Matches	326	12 356	507	17,259	320	10,075	Austria-Hungary, 93-96-94; Italy, 7-2-3; Belgium, United Kingdom, France, &c.
Rock salt	18,931	43,882	19,970	47,280	20,439	31,591	Roumania, 73-92; Italy, 2-6; Austria-Hungary, 25-1; Russia, 1.
Marine salt	10,776	13,419	14.950	17,972	13 215	12,424	Turkey, 72-55; Italy, 28-34-31; Russia, 0-11; Roumania 0-3

BELGIUM.

The trade between Great Britain and Belgium is the subject of a special classification in the report of Mr. Raikes, of Brussels, to Her Majesty's Government, from which we have abstracted the following items relative to the imports into Belgium and the exports to the United Kingdom respectively:—

Articles.	Value. £
Candles	13,840
Salt (raw)	17,800
,, (refined)	29,280
Manure	3,800
Chemical products	313,680
Resin, &c...	..1,381,600
Soaps	23,800
Indigo	24,080
Dyes (*o.u.*)	156,120

Of these products only chemicals show a decrease.

In the exports to the United Kingdom, which follow, chemicals again are the only products which show a falling off:—

	£
Candles	11,480
Manure	54,640
Vegetable oils	243,400
Chemicals (*o u*)	169,440
Resin, &c	36,120
Soap	1,520
Dyes (*o.u*)	114,880

SANTA ELENA NITRATE CO.—The accounts for the year ended June 30 last show a profit of £208, which, together with the balance of £1,549. brought down from last year, makes a total of £1,757, which the directors propose to carry forward. The company is under no obligations as to limiting the output; but it does not find the outlook encouraging enough to manufacture nitrate at all; so the freedom from such obligations is mainly an academic advantage.

CLOSING OF A LIVERPOOL SUGAR REFINERY.

As notified elsewhere in this issue, Messrs. Crosfield, Barrow, and Co., of 323, Vauxhall-road, Liverpool, have been compelled to close their sugar refinery. The bulk of the men were given a week's notice last week, and gradually the rest will be discharged as the affairs of the firm are wound up, and "*finis*" is written to the history of one of the oldest industries in Liverpool. In connection with the causes which have led to this step being taken, Mr. C. J. Crosfield was interviewed as follows by the "Liverpool Journal of Commerce":—"Yes," said Mr. Crosfield, "we have decided to close. The bounty business will ultimately close all the sugar refineries in the country—there are very few of them left now. We have seen it coming in our case for a long time, but we have always been hoping, rather against hope, that something would be done. The conference at Brussels last year looked as if it was going to produce some result. Nothing came of it, however, because our Government would not do what they ought to have done—agreed to a penal clause which would either have countervailed bounty-fed sugar or prohibited its importation altogether. The British commissioners to the congress advised the Government that some such step was absolutely necessary, but although, since the conference adjourned, the Government have done what we asked them to do with regard to India, they do not see their way to grant the same treatment to us. There is, no doubt, a countervailing duty on bounty-fed sugar in India, and if the same measure had been applied to England it would, in my opinion, have saved us and other people who will ultimately have to follow our example and close their works."

In the course of further conversation it transpired that Messrs. Crosfield and Barrow's works have been in existence for nearly 50 years and give employment to 450 men, the notice to whom, in the majority of cases, will take effect this week. The annual output of the firm has been about 50,000 tons of refined cane sugar; the wages bill alone amounted to £25,000. per annum; but the step the firm have taken will mean losses in other directions, as, for instance, an engineers' bill of from £4,000. to £5,000 for renewals and repairs, £6,000. a year in carting and carrying, over £12,000. for coals, and £1,200. per annum on fire insurance, the bulk of which, falling on Liverpool, is a serious blow to a city that has so few industries of its own, while the stoppage of such an extensive refinery as that of Messrs. Crosfield and Barrow is a significant sign of the desperate state to which the sugar refining industry of the country generally has been reduced, so Mr. Crosfield contends, by the bounty-fed competition of foreign countries.

"We ought to have closed many months ago," Mr. Crosfield said, "but considered it right to fight to the end. So many of our employés are old servants of the firm that we part from them with great regret, and we would not have closed had there been the slightest chance of better times ahead. But even if better times should come again, it will be exceedingly difficult to build up once more a connection that has taken half a century to bring together."

As illustrating the effect of foreign bounties on British sugar refining, Mr. Crosfield showed a diagram of the consumption respectively of British refined and grocery cane sugar, and of foreign refined, in 1884 and 1897. In 1884, it appeared, the consumption of British was 842,778 tons; in 1897 it was only 652,000 tons; while the consumption of foreign refined sugar in 1884 was 213,334 tons, and in 1897 it had risen to 792,000 tons. Again, in 1884 our imports of cane from British colonies amounted to 241,221 tons, and in 1897 to only 83,823 tons; foreign cane imports, it is true, had gone down in the meantime from 340,602 tons to 167,769 tons, but raw beet from abroad had risen from 400,794 tons to 462,015 tons; and foreign, or Continental refined, from 213 334 tons in 1884 to 791,604 tons in 1897. The figures for 1898, Mr. Crosfield said, were practically the same as for 1897; the total cane, which in 1897 stood at 17·1 per cent., had gone down to 16·66 last year, while beet at the same time had risen from 82·9 per cent. in 1897 to 83·34 per cent. last year; and figures for the corresponding nine months of 1898 and 1899 showed the same process to be still going on, viz., increased importations of foreign refined beet sugar, a decreased ratio in the production of refined cane sugar at home, and all due, Mr. Crosfield contended, to the operations of the foreign bounty system, against which our Government would take no action beyond expressing sympathy for those concerned.

In answer to further inquiries, Mr. Crosfield said the bounty on raw sugar exported from foreign countries to England varied from 25s per ton in Germany to as much as £4 10s. per ton in France; the bounty on refined was 10s. more in the case of Germany, which was our chief competitor, while France did not export so much refined sugar; at any rate, the refined she did export did not compete so much with England as German refined sugar. "It is evident," said Mr. Crosfield, "that what has destroyed our trade is the bounty, the difference in the bounty on refined and raw sugar, because the bounty on raw sugar, although it has destroyed the trade of the West Indies, does not really have any effect on us here as sugar refiners. Now, the extra bounty of 10s. per ton on refined over raw sugar, though it is a matter that is destroying the British sugar refining industry altogether, is a thing that the consumer would never feel at all, because 10s. per ton is only a penny per cwt., or one sixteenth of a penny per lb. of sugar."

"Then do you ask the British Government to grant you a bounty on your sugar?"

"No," replied Mr Crosfield, "we do not ask for any bounty at all, for no protection at all, in the technical sense of Protection. What we do want is the protection of the British sugar refiner against his foreign competitor, which is enjoyed by every peaceable citizen against the depredations of others; we want 'police protection,' so to speak, and nothing more. If, for fiscal reasons, it would be considered more convenient, the prohibition of the importation of the sugar from any country which did not agree to abolish bounties, would have exactly the same effect. We want the abolition of bounties. Whether it is done by one method or another is a matter that does not concern us."

"But suppose other countries are not willing to abolish bounties?"

"They are all willing to do so, except France and Russia. Germany, Austria, Belgium, and Holland are all willing, but the British Government, though they have expressed their desire and willingness to abolish bounties, have always stopped short of the necessary step, namely, the prohibition of the importation of sugar from those countries France and Russia—which did not agree, or the imposition of a countervailing duty on sugar imported by them into England."

Questioned as to whether such a step would not raise the price to the home consumer, Mr. Crosfield said: "I do not think the public would have to pay more for their sugar. Even if they did, it would be so little that they would never feel it, and the proof is that we have at present fluctuations in the sugar market to a much greater extent during the year, and they cause no decrease in consumption."

In conclusion, Mr. Crosfield said that Liverpool, up to the present, had been the largest area of sugar refining in the country, but the disappearance of his firm would leave only three others in existence, and the Clyde sugar refining industry was in an even worse state He took a gloomy view as to the future of the industry, unless the British Government resolved on action along the lines above, and intimated that his views of the causes of depression were shared by other firms in Liverpool, and were, indeed, general among the sugar refiners of the country as being the explanation of the decline of the industry, and containing the only remedy for the present disastrous state of affairs.

THE ARGENTINE BORAX CO.

In pursuance of the remarks we quoted from the *River Plate Review* in a recent issue (No. 645, p. 213), anent this company, we cite the following additional allusions from a more recent issue:—

"Somebody is trying to make something out of the floating of the Argentine Borax Co., as we hear on very good authority that the owner of the property is only to receive £6,000. of the purchase money, which is placed at £100,000.—the former figure is about all that the place is worth"

"What's in a name? According to the *Bullionist* of England, Mr. Augustus H. Levy, late of New York, became Señor Don Augustus H. Levy, of Buenos Aires, when figuring as one of the vendors of the borax fields in Salta, and we have since discovered that a further change has been made, as according to the passenger list of the last Royal Mail steamer he figures as Mr. Levi."

"We note that Dr. Newton, who came out to inspect and report on the property of the Argentine Borax Company, has returned to England in the *Magdalena*. He is accompanied by Mr Levy, who is also interested in the company, and who was previously known out here as a person who would always accommodate anybody with a loan, as long as the interest was high enough. He has left that business, however, and gone into company promotion. We still caution investors to keep out of the concern.

The New Salt Trade Combine.—At a meeting of the newly-formed North-Western Salt Association of England, comprising Cheshire, Lancashire, and Worcestershire, held at Northwich on Saturday, it was announced that the salt manufacturers had combined for purposes of mutual benefit. It was further intimated that they were working with the North-Eastern Association, including Middlesbrough. The object is to advance prices in the face of the advance in fuel. A further meeting of salt manufacturers was held at the Crewe Arms Hotel, Crewe, on Wednesday. There was a large attendance, all the firms in Cheshire, Lancashire, Staffordshire, and Worcestershire being represented. The combination which has long been under consideration was declared to have been accomplished, and it was resolved that the name of the organisation should be the British Salt Association. There is said to be every probability that it will be joined by the North-Eastern Association, established by salt producers in the Middlesbrough district.

LAGER BEER INDUSTRY AT BURTON.

INTERESTING PLANT.

THERE is some kind of consolation in the fact that while we announce in this issue the practical extinction of the sugar refining industry at Liverpool, we can record the establishment of a hitherto essentially foreign industry at the breweries of Messrs. Allsopp and Sons, Ltd., Burton-on-Trent.

Although for many years larger beer has been produced at different centres in England, notably London, Glasgow, Wrexham, and Bath, it has not hitherto made that headway with the British beer drinking public as its many advocates had anticipated. The reasons, however, are not far to seek. In the first place, the consumers of the beverage were generally only those who had acquired the taste from travelling on the Continent and foreigners resident in our more important cities. In the second place, a great hindrance to its growth in popular favour has been its high price compared with that of the home article, the very lengthy and expensive Bavarian process hitherto necessary for its production having been the great bar for putting it on the market at a price enabling it to compete with English ale. Again, it must be confessed that British imitations of the genuine article have until now been a long way behind in point of fulness of flavour, sparkle, and head-retaining properties. But the Bavarian method is no longer the only one whereby this inviting drink may be manufactured. Our American cousins, having to cater for a far more cosmopolitan population than our English brewers do, have from many of their breweries had to supply both varieties of beer, and with their usual perspicasity and ingenuity have so far succeeded, by the adoption of the new vacuum system of fermentation, to produce both German lager and English ale without any of the complicated plant hitherto indispensable for the manufacture of the former. Hence it is that Messrs. Allsopps have decided to strike out in this new direction—a move which is undoubtedly one of the greatest importance, and to the Messrs. Allsopp's all credit is due for having been the first to introduce into England a system which has rendered the production of an excellent lager beer at a popular price a commercial possibility. The installation of the necessary plant and machinery for the production of this class of light beers, which has just been finished by the firm, is recognised to be the most up-to-date, complete, and perfect in the kingdom. The entire machinery and plant has been constructed and installed according to the designs and under the supervision of the Pfaudler Vacuum Fermentation Company, of New York. After a lengthened tour of inspection among the principal lager breweries of the Continent, the chairman of directors and the chief brewer of Messrs. Allsopp and Sons decided that the Pfaudler vacuum system of fermentation produced the finest beers, and was therefore the one to adopt. The system is patented all over the world, and is being extensively adopted in Germany, North and South America, and Australia. Messrs. Allsopps are, however, the first to introduce it into England. For simplicity in operation, smooth working, easy control, and perfect cleanliness, no other process can be compared to the Pfaudler vacuum. By this system the principal and secondary fermentations are combined and completed in one operation, and the beer comes direct from the machine, matured, perfected, aged, and ready for the market. There are many notable features in the system. Not the least important of these is the collection and storage of the gas made during fermentation, which may be used again as a natural agent for recharging the beer. Another thing worthy of note is that the wort is cooled only to 7·5° Reaumur, and the whole process from the beginning of fermentation to the completion of the brew is carried on in closed vessels. The fermentation vats, or tanks—of which there are 40, each of 90 barrel capacity—are glass enamelled internally, and can always with the greatest ease be kept spotlessly clean. Once the liquor enters these tanks no hand ever touches it till the process is complete, even the atmosphere does not come in contact with it; only sterilised air under absolute control is allowed to enter during fermentation, which fact, owing to the vacuum and the continuous removal of carbonic acid gas as it is generated, causes an incessant and, of course, beneficial rousing of the beer. The fermentation is finished in about seven days under the Pfaudler system, while on the old lines it used to take three months. Even when vacuum beer is finished on chips and is chip casked the same as other beer, the average time from kettle to market is only—brewing and pitching one day, fermentation five to seven days, cooling and settling one day, and chip cellar fourteen days, making a total of but 21 to 23 days. Again, this system is entirely different in detail from that at present followed among the Germans. The difference is a great improvement, for the beer is not exposed to, what may be, the dirty outside air. Only filtered air is used. No wood vats are employed for storage; glass enamelled steel tanks—vacuum tight—take their place, and thus absolute immunity from dust and dirt is assured, perfect cleanliness is guaranteed, and a purer and brighter beer is the result. The fermentation rooms are kept *cool and at a uniform* temperature all the year round. For this purpose two 75-ton ammonia ice machines have been installed. These have been supplied by the Buffalo Refrigerating Company, and will produce ten tons of ice per day, which can be utilised for shipping beer or cooling work. It may be added that in racking the lager into trade casks, the operation is performed under pressure and seal, which effectively prevents the liquor coming into contact with the air till it reaches the consumer. Allsopp's lager is brewed from pure malt and hops only, which, coupled with the fact that the famed Burton waters are admirably adapted for the making of such light ales, should enable the firm to put on the market a beverage of high excellence, and one which few importers of foreign beers will be able to equal, and none to surpass. There is little room to doubt that in a short time the public demand for Allsopp's lager will be such as to tax to the utmost the capacity of this, their newest brewery, which is said to be capable of turning out from 50,000 to 60,000 barrels per annum.

THE MERSEY SALT SHIPMENTS.

THE monthly report of the shipments of salt from the Mersey, issued by Mr. H. E. Falk, states that the "shipments during September have not been satisfactory, mainly because of the scarcity of ships from the Mersey." The tables appended to the report amply bear out this statement, for there is only one increase reported in the September shipments, this being an increase of about 300 tons to Central and South America. To Asia there is a decrease of nearly 10,000 tons. The total shipments for September were but 48,551 tons, compared with 61,656 tons in September of last year. The reports regarding previous shipments this year are a little more favourable, but the increases are about balanced by the decreases, the totals being this year 425,769 tons and last year 425,489. Of the September shipments 45,072 tons were from Liverpool (compared with 55,251 tons last September), and 3,479 tons from Runcorn and Weston (compared with 6,405 tons in September, 1898). The previous shipments were from Liverpool 331,509 tons (against 335,843 tons last year), and from Runcorn and Weston 94,260 tons (compared with 89,646 tons last year).

THE HEMINGWAY COKING PROCESS.

THE Universal Fuel Co., of Chicago, are making satisfactory progress in demonstrating the ability of the Hemingway coking process to successfully coke low-grade coal. The four ovens which have been erected at Chicago have now been in use for a month, and have tested a variety of coal shipped for the purpose from Ohio, Indiana, Illinois, Iowa, and Kansas. For the purpose of demonstrating the superiority of the process over the old style beehive oven, a considerable quantity of Connellsville coal was secured and coked. The fact was demonstrated that by the Hemingway process much more coke is obtained from a ton of Connellsville coal than the accepted average of 66 per cent, as shown by the coking practice in the Connellsville region. At the same time the process of firing has been shortened materially. In the Hemingway ovens metallurgical coke was produced in thirty hours and less, which is to all appearances as good as the average Connellsville furnace coke. The coke produced from Western coal varies with the character of the coal It is charged in the ovens just as received from the mines, whether it contains slate and other foreign matter or is comparatively clean Slaty coal produces a poor quality of coke, of course, but the slate or other dirt apparently does not prevent the coal from coking, the slate merely adhering to the mass. Surprisingly good coke is obtained from Western coal heretofore considered non-coking. The Hemingway coking process does not require an oven of different design from the ordinary beehive oven. On the contrary, beehive ovens can be equipped for this process with no alteration, but by merely adding the hot-blast apparatus. Joseph Hemingway, the inventor, states that when coke ovens of this character are situated adjacent to the mines the air from the ventilating shafts can be utilised for the hot blast, thus saving the expenses of a special blowing plant. By means of the hot blast the oven is heated to over 3,000 degs., and the intense heat thus generated fuses iron, clay, and even firebrick when mixed with the coal to be coked. The inventor attributes the increased percentage of coke obtained by this process to the intensity of the heat. The hydrocarbons, instead of being volatilised and driven off, as would be the case with combustion at a comparatively low temperature, are absorbed by the coke and added to the fixed carbon in the coal.

Some Reasons for Ventilating.—Under this title the Blackman Ventilating Co., Ltd., of Corporation Street, Manchester, and 63, Fore Street, London, have issued a neatly got up *brochure* dealing with the necessity of ventilation, and "mechanical" ventilation in particular. It will be found of use and interest to mill managers, factory owners, and all employers of indoor labour.

SULPHUR IN THE ARGENTINE.

IT is well known, says the *Prensa*, that in our land there is an infinity of natural products which only await the impulse of the adventurous element to constitute them a perfect mine of natural wealth.

Among these may be counted sulphur, a product the working of which it is proposed to carry into effect by a syndicate lately formed, and which had entrusted the study of the producing regions to the engineer, Mr. Henders, who after exploring the province of Salta will go on to the district of Zonda in San Juan, where it appears that sulphur of a very excellent kind is found, as is also the case in the territory of Neuquen.

There are many other products, such as lead, carbonate of soda, and various minerals besides, which could easily serve for the bases for the establishment of other industries, if only there were a little determination shown on the part of the Government.

The negligence of our authorities will permit, without a shadow of a doubt, that in this matter there will happen, as it does with the railways and other things of the kind: these businesses will be taken up by foreign capitalists, and the dividends will in consequence be wafted away to far off countries, without any benefit whatever remaining for our national interests.

The Argentine himself is aware of this fact, but, whether it is that he lacks the energy, or the capital, or both, it is often apparent that he allows his opportunities to pass by without taking advantage of them. To cast the blame on the Government is an easy way in which to salve his conscience, but while doing so he should be just in his judgment nor be astonished if foreigners step in and profit by his indolence.

AMERICAN TRADE NOTES.

AMERICAN Fisheries Co. has passed the September dividend on the preferred stock. The March dividend, it will be recalled, was also passed.

* * *

Bi-chromate of potash and bi-chromate of soda buyers in the States are to be congratulated upon the advent into the market of the product of the Anatron Chemical Company, who are extensive manufacturers of these articles and also of chromic acid. The management of the company is in the hands of old and competent chemical men, who have had extended experience in the making of these articles, assuring a high grade product of uniform quality and strength, and wherever the articles have been introduced they have given universal satisfaction and been pronounced equal to the "very best." The works of the company are situated at Elizabethport, N.J., with abundant railway facilities, and prompt delivery can be assured. Mr. Franklin H. Kalbfleisch is president of the company, and the New York offices are situated at Nos. 31, 33 and 35, Burling Slip.

* * *

Among the new chemical plants recently started is that of the Standard Chemical Works, Camden, N. J.; capital, £40,000. fully paid; organised Aug. 17th, 1899, with Mr. James C. Elms, president; Mr. Walter S. Burns, vice-president and treasurer; Dr. H. B. Eigelberner, chemist and superintendent. They purchased the new phosphate, tartar plant, and new alum plant, formerly owned and operated by the U. S. Chemical Co., with 2·35 acres of land, having 165 feet of wharfage on Cooper's Creek and railroad sidings from the C. and A. Division, Pennsylvania Railroad. Dr. Eigelberner has been connected with Mr. Alonzo L. Thomsen, of Baltimore, for six years, chemist for the Meyer Bros. Drug Co., St. Louis, and superintendent of the soda plant of the Provident Chemical Works, St. Louis, for two years.

THE PRIMITIVA GAS CO.—Our correspondent in Buenos Aires advises us that the shareholders of the Primitiva Gas Company have met to take into consideration a proposal that has been made to the Directors to convert the company into an English Company. The actual capital of the Primitiva is four million dollars paper, and the new company would have a capital of £1,200,000. divided up as follows:—£800,000. in 6 per cent preferred shares, £400,000. in ordinary shares, and £400,000. in 4 per cent. debentures would be issued as soon as the contract is signed, proceeds to be used for improvements. Shareholders in the Primitiva would receive £10. in preferred shares and £5. in ordinary shares for each 50-dol. share that they hold to-day; they would also have the right, for ten days after the scheme is approved, to receive £10. in cash instead of the preferred share. There would be a local directorate in Buenos Aires and a board in London. There is every probability of the project being accepted by a large majority of shareholders, and that it will not be blocked as was the former scheme. This company has had a splendid past and it has a brilliant future before it, and as soon as it has more workable capital its sphere of action will be greatly increased.

WHAT IS WHITE LEAD?

AT the Liverpool Police Court, on Wednesday, before Mr. Stewart, Walter R. Taylor & Co., oil, colour, and paint manufacturers, were summoned on two informations for a contravention of the Merchandise Marks Act. Mr. Paxton prosecuted for the Board of Trade, and said the informations were both laid under section 2 of the Act. One was that they applied a false description to goods, and the other that they sold goods bearing that false trade description.

It seems that in January last Mr. Samuel H. Latham, of London, asked defendants for a quotation for genuine white lead. They wrote back quoting "Genuine ground white lead 18s. 6d. a hundred." An order was given on that quotation, and an invoice was sent on the 22nd February, in which, after giving the numbers and letters to be attached to the cans, it stated that the whole contents were genuine ground white lead and oil. The goods were delivered and warehoused, and one of the kegs were analysed by Mr. Norman Tate. He found that the contents were mixed with sulphate of baryta and sulphate of lead to the extent of 18 per cent., these being much cheaper than ground white lead.

The offence was admitted, and Mr. Edwards urged, on behalf of the defendants, that there had been carelessness in executing the order.

Mr. Stewart: You cannot call it carelessness; it is a deliberate adulteration.

A penalty of £10. and £10. costs was inflicted in one case, and the other was withdrawn.

THE MAYPOLE SOAP COMPANY.

IN connection with the affairs of this company, Mr. Upjohn, Q.C., appeared in support of a petition on the part of the Maypole Co., Ltd., and its liquidator, that sanction should be given to a scheme of arrangement for voluntary winding up and the construction of a new company.—Mr. Buckmaster opposed the petition on behalf of a Mr. Delane, an ex-employé, who was a preferential creditor.—Mr. Upjohn said the claim referred to was for £50. for wages, and the company's answer was that the amount had been drawn in advance.—Ultimately, after some discussion, Mr. Upjohn agreed that part of the scheme proposed should be that £60. of the assets of the old company should be set apart to answer Mr. Delane's claim, and the costs of his appearance.—Mr. Upjohn said the company was incorporated in December, 1896, with a capital of £200,000., of which £50,000. was preferential and £150,000. ordinary shares. Nearly, but not quite, the whole of each series had been issued, viz., £46,000. preferent and £148,000. ordinary. The debentures of the company amounted to £15,500, and the unsecured creditors' claims amounted to £24,000. By the scheme set forth in the petition it was proposed to form a new company and transfer to it all the assets of the old company. First of all there would be an issue of first mortgage debentures to the existing debenture-holders for the same amount they held in the old company. As to the unsecured creditors, there would be an issue of second mortgage debentures. As to shareholders, every preferent shareholder in the old company would get a preference share in the new company, with a liability to pay 2s. and every ordinary shareholder would get an ordinary share in the new company, with a liability to pay 1s. That had been sanctioned by a special resolution of the shareholders, who had approved a sale by the liquidator on the terms set forth in the scheme. It had also been approved unanimously at a meeting of debenture-holders, and by a large majority at a meeting of the unsecured creditors.—His Lordship approved the scheme.

THE ASSAM OIL CO.—The board of the Assam Oil Company, Limited, announces that "the whole of the plant for the new refinery at Digboi has been ordered on the latest and most approved systems, and under the immediate superintendence of Professor Boverton Redwood and of the general manager. Delivery of the plant is promised early next year. The manager of the refinery leaves by overland route for Assam by the first steamer available next month, with complete foundation plans, &c. Owing to the abnormally heavy rains in Assam this year, the work of clearing sites, &c., has been greatly impeded; but the cold season having now set in, operations will be pushed on vigorously."

GUATEMALA INDIGO SALES.—In the October sales, which took in London on Tuesday, Messrs. Millward and Co. report that the catalogues comprised only 273 serons, which consisted chiefly of ordinary to good qualities, fine being scarce. All qualities met with a good demand at the sales currency, but owners would only part sparingly, holding for still higher prices, with the conviction that this description of indigo is still relatively cheap. As compared with the previous sales, prices may be quoted 6d. to 8d. per lb. dearer. Quotations now are:—Sobres, 2s. 9d. to 3s. 6d.; Cortes, 2s. 1d. to 3s. 5d. The present stock is 1,016 serons, against 1,470 last year.

Reports of Companies.

A. G. FÜR TREBERTROCKNUNG IN CASSEL.

In accordance with our promise of last week we herewith present the directors' report and proceedings of the eleventh ordinary general meeting of the company, held at the Hotel König von Preussen, Cassel, on Aug. 28th, 1899. The report was as follows:—

Aga'n we have the agreeable duty of submitting a satisfactory annual report to the shareholders.

Full attention has been paid both to the development of those enterprises which we have taken up on a large scale during the last years, and to those branches of our concern for which the company was originally formed; accordingly we have the satisfaction of reporting a considerable extension of the sales of dried brewers' grains and distillers' dregs, their turnover showing an increase of Mark 2,410,497·12.

The sales of plant and apparatus for that branch of industry also show a considerable increase, and we have much pleasure in drawing attention to the general satisfaction expressed by our customers, the number of whom is constantly extending. The orders for machinery to be supplied to wood distillers, chemical works, brewers and distillers, have accumulated in such numbers as to considerably surpass our ability to cope with them during the current year.

It will be remembered that the erection of our various works for the Bergmann process of carbonising wood, and the flotation of the subsidiary companies formed to acquire the same, was not begun until all parties interested had satisfied themselves by means of experts' reports as to the prospects of those enterprises. The subsidiary companies formed by us in this connection are all progressing favourably. Several of these companies, as the Hungarian and the Bosnian, have already published their first balance sheets, and the results achieved by them have enabled the payment of dividends amounting to 10 and 11 per cent. respectively, after the usual provision for depreciation.

Several of our other subsidiary companies are about to publish their accounts, and will also show satisfactory results. The works established in France and Italy are now running to their full capacity, and the results reported amply confirm the expectations with which they were started. The various works in course of construction, as those at Hamburg and in Russia, are rapidly approaching completion.

The various wood distilleries and chemical works erected by us are now turning out very considerable quantities of marketable products; the turnover in their output increased by Mark 2,702,925·89 during the past year, thus confirming the estimates presented to the last annual meeting. As those works are constantly increasing their output, a further considerable addition may be anticipated in this branch of our business for the current financial year.

Excellent progress and splendid prospects for the future have also to be reported in respect of our most recent line, the manufacture of machinery and apparatus for the utilisation of carcases and animal refuse. The development of this department is being pushed ahead with all rapidity, and we believe that its results will amply repay the attention devoted to it.

	Mark.
The gross profit for the past financial year amounted to	7,180,655 67
Expenses, including taxes, etc., amounted to	2,042,086 90

This profit includes Mark 561,951·69, profits from the sale of patents owned by our company, and Mark 912,025·61, profits realised by the sale of securities, after deduction of the price at which they stood in the books; the rest of the profit was derived from the ordinary trading and manufacturing business.

This class of assets is shown by the balance-sheet to consist of:—

Mark	6,191,292 65	at the Bank.
,,	7,277,151 48	by machinery and apparatus delivered to subsidiary companies.
,,	2,226,141 90	by machinery and apparatus delivered to brewers, distillers, chemical works, municipalities, and private customers.
,,	7,042,530 63	sundries from our regular business, representing some 2 000 accounts.

Of the outstandings enumerated, Mark 2,015,698·64 are covered by securities and other sound sureties held by the company.

Bad and doubtful debts were written off to the amount of Mark 56,786·81 during the past year, as shown by the Delcredere account.

The liabilities of the company are mainly connected with the regular course of business, and refer to raw materials and other articles received; on the 31st March they totalled Mark 4,273,929·29 against Mark 3,971,913·71 on the 31st March, 1898.

At the end of the financial year, calls amounting to 25 per cent., equal to Mark 9,000, remained unpaid in respect of Mark 36,000 shares of the new issue; since that date, however, the last call has been paid in respect of Mark 13,000 of the defaulting 13,000 shares, thus reducing the amount of unpaid calls to Mark 5,750.

	Marks.
On the 31st March, 1898, our holding of shares in our subsidiary companies amounted to ...	8,844,821 52
The shares acquired since that date in exchange for machinery, licences, and other value amount to	7,411,133 60
Total...	16,255,955 12
Of this holding, the following amount was realised during the year	7,086,049 57
Thus the holding amounted on the 31st March, 1899, to ... ... (as shown in the balance sheet)	9,169,905 55

We would have no difficulty in reducing the share holding remaining in our possession, as many opportunities were offered of selling large blocks at prices showing a large appreciation upon cost, as they stand in the books; it was, however, resolved to retain the present holdings, in order to maintain our influence on the management of the companies.

	Marks.
Our holding of Debentures of the various subsidiary Companies amounted, on the 31st March, 1898, to	3,921,500 —
During the year this holding was increased by Debentures acquired in exchange for machinery delivered to the amount of ...	2,754,355 —
Thus totalling	6,675,855 —
Of this holding the following amount was realised	4,212,500 —
Thus, the holding, as shown in the balance sheet of March 31st, amounted to...	2,463,355 —
Mortgages were received in lieu of payment to the amount of ...	750,000 —
Of this amount we realised ...	500,000 —

Retaining Mark 250,000, shown in the balance sheet.

The amount of Mark 184,987·87 standing under this head in the balance sheet, refers to the interest acquired for that sum in the "Eiweiss und Fleisch-Extract-Compagnie in Altona," a company working an invention of Privy Councillor Professor Dr. A. Classen, of Aachen. The Altona concern is worked as a limited liability company without shares.

The works were started a few months ago, and the results obtained since then are very promising. Our decision to acquire an interest in a concern standing in no special relation to our own lines was arrived at in order to obtain the rights of another invention of Professor Classen, which is closely related to our special branches of industry, and which was not obtainable without acquiring the said interest.

The practical development of the invention just referred to has occupied our attention for some time past, and we hope to approach the public with further information on the subject in the course of the current year.

In our opinion, the present standing of the company would have justified the payment of those amounts of remuneration from profits which were placed to reserve in the preceding accounts, especially since we have realised a considerable portion of our holdings of shares at a large profit. We have, however, obtained the consent of those entitled to the remuneration in question to delay the actual payment of the amounts, and continue to reserve the sums under notice.

Continued on page 268.

DR. BALANCE SHEET FOR THE

	Mark	Pfg.	Mark	Pfg.
To Share Capital Account	12000000	—		
Deduct 25 per cent. of M. 36,000 of 1898 issue, being not yet paid up	9000	—	11991000	—
,, Reserve Fund Account			10524730	45
,, Special Reserve Fund Account			5000000	—
,, Delcredere Fund Account—				
Amount April 1st, 1898	135115	68		
Decrease in 1898-99	56786	81	78328	87
,, Employees' and Workmen's Benovolent Fund Account—				
Amount April 1st, 1898	121903	33		
Interest	4886	82		
	126790	15		
Decrease in 1898-99	400	—	126390	15
,, Directors Percentage Reserve Account			1098603	64
,, Expenses Account, Increase of Capital in 1898 (reserved for Taxes on Premium on Shares)			588000	—
,, Current Accounts—				
Creditors			2308772	32
,, Acceptances Account			1965156	97
,, Dividend Account—				
Unclaimed Dividends for 1896-97			250	—
,, Profit and Loss Account—				
Net profit for 1898-99			6090793	
			39772026	16

TWELVE MONTHS ENDING 31ST MARCH, 1899. CR.

		Mark.	Pfg.	Mark.	Pfg.
By Real Estate Account	Valuation on April 4th, 1898	179186	30		
	1 per cent. written off	1791	86		
		177394	44		
	Increase in 1898-99	101829	—	279223	44
,, Machinery Account	Valuation on April 4th, 1898	140699	06		
	Decrease in 1898-99	8664	74		
		132034	32		
	12 per cent. written off	15844	11		
		116190	21		
	Increase in 1898-99	161241	24	277431	45
,, Buildings Account	Valuation on April 4th, 1899	66770	59		
	2 per cent. written off	1335	40		
		65435	19		
	Increase in 1898-99	151585	57	217020	76
,, Drying Plant Account	Valuation on April 4th, 1899	8482	51		
	20 per cent. written off	1696	51	6786	—
,, Utensils Account	Valuation on April 4th, 1899	40860	29		
	20 per cent. written off	8172	06		
		32688	23		
	Increase in 1898-99	25861	87	58550	10
,, Vehicles and Harness Account ..	Valuation on April 4th, 1899	3384	62		
	20 per cent. written off	676	92		
		2707	70		
	Increase in 1898-99	38	40		
		2746	10		
	Decrease in 1898	40	—	2706	10
,, Horses Account	Valuation on April 4th, 1899	2329	78		
	20 per cent. written off	465	95	1863	83
,, Lighting Plant Account	.. ..	6955	84		
	100 per cent. written off	6954	84	1	—
,, Sacks Account	Valuation on April 4th, 1899	157615	23		
	Increase in 1898-99	170118	12		
		327733	35		
	60 per cent. written off	196640	—	131093	35
,, Patents Account	Valuation on April 4th, 1899	1	—		
	Increase in 1898-99	85769	95		
		85770	95		
	100 per cent. written off	85769	95	1	—
,, Barrels Account	Valuation on April 4th, 1899	11408	16		
	30 per cent. written off	3422	49		
		7985	67		
	Increase in 1898-99	5475	—	13460	67
,, Model and Designs Account ..	Valuation on April 4th, 1898	1	—		
	Increase in 1898-99	1112	55		
		1113	55		
	100 per cent. written off	1112	55	1	—
,, Tools Account	Valuation on April 4th, 1898	2316	74		
	30 per cent. written off	695	02		
		1621	72		
	Increase in 1898-99	5043	94	6665	66
,, Partnership Account	.. ..			184987	87
,, Cash—incl. Fitters' Cash Account	.. ..			192899	82
,, Bills Account	.. ..			801474	47
,, Securities Account	Bonds			2463355	—
	Mortgages			250000	—
	Shares			9169905	55
,, Current Accounts	(*a*) At Bank			6191292	65
	(*b*) Machinery delivered to subsidiary companies			7277151	48
	(*c*) Machinery delivered to others, as Breweries, Distilleries, Chemical Works, Municipalities			2226141	90
	(*d*) Sundries from the regular business			7042530	63
,, Trading Account, Stocks on hand	Brewers' Grains and Distillers' Dregs	575523	81		
	Parts of Machinery, finished and half-finished Apparatus, etc., for Depts. D and E	958196	55		
	Chemical Products	1075146	98		
	Wood, Coal, Stores, Forage and Guano	368615	09	2977482	43
				39772026	16

Dr. PROFIT AND LOSS ACCOUNT

1899					
March 31	To Depreciation:—	Mark.	Pfg.	Mark.	Pfg.
	Real Estate Account ... ... 1 per cent. ...	1791	86		
	Machinery Account... ... ... 12 ,, ...	15844	11		
	Buildings Account ... ... 2 ,, ...	1335	40		
	Drying Plant ... ... 20 ,, ...	1696	51		
	Horses Account ... ... 20 ,, ...	465	95		
	Utensils Account ... ... 20 ,, ...	8172	06		
	Vehicles and Harness Account ... ... 20 ,, ...	676	92		
	Sacks Account ... ... 60 ,, ...	196640	—		
	Patents Account ... ...100 ,, ...	85769	95		
	Barrels Account ... ... 30 ,, ...	3422	49		
	Models and Designs Account ... ...100 , ...	1112	55		
	Tools Account ... ... 30 ,, ..	695	02		
	Lighting Plant Account ... ...100 ,, ...	6954	84	324577	66
	,, Trading Expenses Account			970234	64
	,, Manufacturing Expenses Account			673376	57
	,, Taxes and Duties Account			398475	69
	,, Net Profit for 1898-99: Mark 6,090,793·76, appropriated as follows:—				
	,, Special Reserve Fund	500000	—		
	,, Delcredere Fund	60000	—		
	,, Manager's Remuneration under Articles	212699	55		
	,, 4 per cent. Dividend on Mark 6,000,000—for 12 months ..	240000	—		
	,, 4 per cent. Dividend on Mark 6,000,000—for 6 months ...	120000	—		
	,, Directors' Remuneration under Articles	389399	11		
	,, Employées' and Workmen's Benevolent Fund	60000	—		
	,, 36 per cent. Extra Dividend on 6,000,000—Mark for 12 Months	2160000	—		
	,, 36 per cent. Extra Dividend on 6,000,000—Mark for 6 Months	1080000	—		
	Balance	1268695	10	6090793	76
				8457458	32

I certify that the above Balance Sheet and Profit and Loss Account correspond with the books the Company, the latter having been examined by me.

Cassel, the 11th July, 1899.

EMIL NORDMANN,
Sworn Public Expert Accountant,
Magdeburg.

FOR THE TWELVE MONTHS ENDED 31ST MARCH, 1899. CR.

1898.		Mark.	Pfg.
April 1	By Balance from 1897-98	1276702	65
1899.			
March 31	„ Dividend Account—		
	Forfeited Dividend from 1894-95	100	—
	„ Interest Account	90185	64
	„ Sale of Patents...	561951	69
	„ Profit from Sale of Securities	912025	61
	„ Trading Account—		
	Gross Profit	5616492	73
	...		
		8457458	32

I certify that the above Balance Sheet and Profit and Loss Account correspond with the books the Company.

RETTBERG,
Lieutenant-Colonel (retired).

CASSEL, the 13th July, 1899.

Continued from page 263.

Our stock of brewers' grains and distillers' dregs is smaller than in the preceding year, but the stock of chemical products has increased considerably. The former was, owing to the great constant demand, reduced by the end of the year to an extraordinarily small amount, whilst the expansion of the stock of chemical products is intended to cope with the recent great increase of our dealings in this line. All stocks on hand on the 31st March have since been disposed of at a handsome profit.

Our reserves now amount to Mark 16,024,730·45, as against a share capital of Mark 12,000,000.

In accordance with our past development, much attention is being devoted to promising scientific experiments in the various fields of our activity. It should, however, be remembered that the entire expenditure incurred for such purposes is defrayed from current revenue, and included in trading and manufacturing expenses.

All departments are progressing favourably in the current financial year, and thus we are justified in again looking forward to good results.

It is our intention to submit a new set of Articles of Association, altered in accordance with the new statute, to the general meeting about to assemble. We draw special attention to the fact that the Board of Directors have consented to a reduction of the percentage of profits due to them as remuneration, in view of the increased share capital. We shall therefore move to reduce the 10 per cent. share of the Directors to 7 per cent., the reduction already taking effect this year. In calculating their remuneration for the financial year, 1898-99, the enactments of the new Code of Commerce have already been taken into consideration.

	Marks.
Gross profits, after deduction of expenses	5,138,668 77
Balance from last account ...	1,276,702 65
	6,415,371 42
Written off	324,577 66
Available profit	6,090,793 76

We propose to appropriate this amount as follows:—

	Mark.
Special Reserve Fund	500,000 —
Delcredere Fund	60,000 -
Manager's remuneration under Articles	212,699 55
4 per cent. dividend on M. 6,000,000 for 12 months	240,000 -
4 per cent. dividend on M. 6,000,000 for 6 months...	120,000 —
Directors' remuneration under Articles	389.399 11
Employees' and Workmen's Benevolent Fund	60,000 —
36 per cent. extra dividend on M. 6,000,000 for 12 months ...	2,160,000 —
36 per cent. extra dividend on M. 6,000,000 for 6 months ...	1,080,000 —
Balance carried forward ...	1,268,695 10
	6,090,793 76

The Manager,
ADOLF SCHMIDT.

Cassel, *July 14th*, 1899.

We entirely approve the above report of the manager, and recommend the proposed appropriation of profits to the general meeting of shareholders.

The Board of Directors:

HERMAN SUMPF, Chairman.
RICHARD SCHLEGEL, Vice-Chairman
TH. SCHULZE-DELLWIG.
ERNST OTTO.
ARNOLD SUMPF.

Cassel, *July 14th*, 1899.

After the presentation of the Report and Accounts, the Chairman (Mr. Hermann Sumpf, President of the Board of Directors) called upon the Manager (Mr. Adolf Schmidt), who addressed the meeting, and in the course of a long speech gave an elaborate account of the present state of affairs and the prospects of the various enterprises of the company. The company had now been in existence for about ten years, and Mr. Schmidt believed it would be of interest to all present to receive a general account of the development of the concern. Originally the company was exclusively devoted to the manufacture and trade in dried brewers' grains. In 1892, the business of the company received an important expansion by the acquisition of the patents referring to machinery for the production of dried brewers' grains. In 1895, an additional expansion of the fields of work open to the company was produced by the purchase of the Bergmann Patents, which referred to the utilisation of refuse wood, and of the Otto Patents Process for the utilisation of animal carcases and meat refuse.

As regards the development of the trade in brewers' grains and plant and apparatus, nothing could be more convincing than the turnover in dried brewers' grains, which in the first year of the company's operations amounted to Mark 591,000.

In 1892 it was	...	Mark 1,550,000
,, 1894 ,,	...	,, 1,704,000
,, 1896 ,,	...	,, 3,852,000
and in the past year		,, 6,262,000

The increase in the turnover of dried brewers' grains alone, apart from distillers' dregs, amounted in the past year to Mark 1,600,000.

In the financial year 1892-93, 39 machines were sold; in the financial year 1895-96, 138 machines were sold, and in the past year 190 machines, the latter figure denoting the record of the Company.

As regards the wood distilleries and chemical works which had been erected, there were nineteen works of this description in full working order at the present day distributed over nearly all European states. Three other important works were now building, and the preparations for the erection of two other works had advanced far enough to allow of commencing the building operations within a short period.

The most difficult question arising in every one of these enterprises was that of securing an efficient staff; it was evidence of gross ignorance of all factors coming into the question if large results were expected from perfectly new enterprises of that class during the first years of their existence. On the whole, however, the company was able to look backward with every satisfaction to the results actually achieved.

In order to present a correct idea of the progressive development of the works to the meeting, the Manager read a schedule of the revenue which had been received by the works in question up to date. In the financial year, 1896-97, the revenue from the products of the various works amounted to Mark 146,312·20; in 1897-98 to Mark 986,438·87; and in the year under review, to no less than Mark 3,689,362·76; whilst in the first five months of the current financial year, products to the value of Mark 2,366,000 had been delivered by the works.

Mr. Schmidt referred to the diagrams illustrating the capacity and progress of the several works, which were open to inspection at the meeting. As regards the output of the works he was able to state that the products commanded a ready sale; not a single complaint of their quality had been made. The leading works of Germany and abroad belonged to the customers of the company.

Important progress had been made with the experiments referring to the production of calcium-carbide by non-electric processes. If the company was not as yet in a position to approach the public with the results of the labours in this department, the sole reason was attributable to the slow delivery of plant necessary for this branch, and the impossibility of getting this plant into working order in time to report on its practical results to the meeting: the Directors were, however, very confident of their ability to overcome all remaining technical difficulties without further delay.

In order to place themselves in a position of perfect independence in respect to the raw material produced in the distilling of wood, the Directors had

resolved to establish close relations with a number of acetic acid works which were already working.

In pursuance of this policy, the chemical works at Schweinfurt, formerly belonging to Messrs. Carl and Dr. W. Tischer, had been purchased by the company and floated as a separate limited liability Company. This Company owned two similar works in Austria besides that at Schweinfurt, and was about to erect another works at Fiume. In all these works a patent belonging to the Actiengesellschaft für Trebertrocknung in Cassel, in connection with the production of acetic acid, was in use, and the Schweinfurt works was working after this new process ever since last spring. He was unable to give stronger facts of the value of this new process than by laying the results of the Schweinfurt works from the months of May, June, and July of the current year before the meeting. The amount of capital invested in the works amounted to not quite Mark 500,000; the gross revenue during the three months in review had amounted to Mark 177,059·59, the total expenditure to Mark 145,694·45 including 10 per cent. per annum depreciation on machinery, 5 per cent. per annum on furniture, and 3 per cent. per annum on the buildings, so that the net profits amounted to Mark 31,365·14 or about 24 per cent. per annum on the capital invested.

This result had been arrived at by working only 606½ tons of acetic lime, whilst the works were capable of dealing with 900 tons per three months or 300 tons per month, and would be worked to their full capacity during the rest of the year.

The greatest part of the Schwienfurt shares were in the hands of the company, and stood in the books at par in the securities account.

The greatest activity was also to be reported in the department dealing with the plant and machinery for the utilisation of carcases and meat refuse. During the financial year in review 17 entire plants had been disposed of, comparing with 12 in the preceding year. The prospects of this department were perfectly satisfactory and all the more promising as the greatest interest and support were granted to them by municipal and other public bodies. Indeed, up to now, the customers of this department were to be found nearly exclusively amongst corporations and State authorities.

In 1890, one year after the formation of the company, the total number of persons employed by the company amounted to 23, being 6 employés, 2 foremen and 15 labourers; at the present date no less than 2,346 stand in the employ of the company, this corps consisting of 106 commercial employés, 31 engineers and technical experts, 25 chemists, 44 foremen, and 2,140 labourers.

With regard to the actual state of the business, Mr. Schmidt stated that the original business of the company, the trade in brewers' grains, had increased during the current financial year, the sales having been effected at a handsome profit, whilst no less than 51 sets of plant had been sold.

The order for machinery for wood distilleries and chemical works would not only fully occupy the company's works during the current year, but it would take some two or three years to cope with all the orders in hand. Only part of these orders had been received from the subsidiary companies.

Continuing, the Manager referred to the repeated attacks made in public on the value of the patents of the company, according to which the company were unable to secure new orders for machinery for the carbonisation of wood. Statements of that description were refuted in a very simple manner by the mere fact that last year no less than 42 proposals were received regarding the erection of new works and partnerships in new enterprises. The company had been unable to accept more than one order, and had to refuse the consideration of all the others, as the orders on hand made it impossible to accept any others at the present time. Correspondence referring to these facts was open to inspection by any one attending the meeting.

During the current year a considerable increase in the turnover in marketable products delivered by the various works had taken place, against the corresponding period of the preceding year, an increase amounting to Mark 1,105,655.64, and the department for apparatus for the utilisation of carcases was fully occupied during the current year, a number of new orders having come in.

Reviewing the entire state of affairs of the company, the Directors were of opinion that the current

year would prove as satisfactory as the past period. (Dividends paid since the company's formation in 1889: 7, 10, 12, 10, 10, 10, 38, 50, 40, and 40 per cent.).

It had been resolved to meet numerous requests which had reached the company from bankers and capitalists by opening new markets to the shares of the company, and accordingly the quotation of the shares had been applied for at the Stock Exchanges of Brussels and Munich. Immediately after the general meeting, the quotation of the new issue of shares of the company would be applied for at the Berlin Stock Exchange.

Privy Councillor Professor Dr. Classen, who was in attendance, was prepared to address the meeting on a new discovery of his which was mentioned by the Annual Report. (Loud applause.)

Professor Classen, who now addressed the meeting, mentioned that for a long time past he had been occupied with experiments on the conversion of amylaceous substances into sugar, and had recently studied the transformation of wood refuse into sugar and alcohol. He dwelt on the far-reaching importance of the discoveries he had made in this connection, and was sorry that he was unable, in view of the insufficient protection obtained up to now, to give the meeting a more explicit account of the successful issue of the experiments in question (Applause.)

The legal adviser of the company then addressed the meeting on the subject of the alteration of the Articles of Association, and the resolutions submitted to the meeting were unanimously adopted.

Mr. Heinzmann, barrister-at-law, of Wiesbaden, thanked the Manager and Board of Directors in the name of the shareholders. For many years he had regularly attended the general meetings of the company, and although he frequently took part in the meetings of other companies, he had in no other case experienced anything like the valuable, elaborate, and detailed statement of the entire business of the company as was usual with the Actiengesellschaft für Trebertrocknung. The shareholders owed the Directors and Manager special thanks on this score, and he requested all present to rise from their seats in order to give a striking demonstration of the confidence of the shareholders in the administration of their company.

The meeting having responded to this suggestion, Dr. Krans, the President of the Bosnian Company for the utilisation of wood, took occasion to strongly refute those attacks on the company which attempted to show that the Bosnian Company were not working under the Bergmann Patent. He declared that the company worked under the Bergmann Patent to its fullest extent, and would like this formal statement to be accepted from him in his capacity as President of the company. Of late, the Bosnian Government had approached his company with the request for regular supplies of charcoal suitable for its furnaces at Vares, and had promised the company a number of most valuable privileges. In view of the important advantages accruing to them, the Bosnian Company had communicated with the Actiengesellschaft für Trebertrocknung, and the latter company had caused elaborate experiments to be made on the lines suggested, and having been able to produce charcoal which was perfectly suitable for the purpose indicated, they had patented their inventions and carried them out on a large scale. He was unable to close his remarks without expressing his sincerest thanks to the Actiengesellschaft für Trebertrocknung for the excellent works they had erected and the great care which had been bestowed upon everything done by them.

Councillor Petraschek, of the Bosnian Ministry, fully endorsed the remarks of the previous speaker in his capacity as nominee of the Bosnian Government on the Board of Directors of the Bosnian Company.

Both these speeches having been received with warm applause, the Chairman closed the proceedings.

Sixty-eight shareholders, with 6,252 votes, were present.

With regard to the foregoing allusions to adverse criticism, it is announced that the company has convened an extraordinary general meeting for November 3rd in order to give to the shareholders full explanations of the attacks recently made upon the company by competitors, and to decide upon the measures to be adopted with reference to them.

Trade Notes.

A Correction.—We are requested to call attention to an error in the advertisement of the Wire Hamper Co., on page iii. of the advertisement supplement in our issue of October 14th. The prices should be 11d., 11½d., and 1s. respectively.

Sulphur Statistics.—At the third annual ordinary general meeting of the Anglo-Sicilian Sulphur Co., Ltd., held last week, Mr. W. T. Brand (the chairman), said that during the past financial year the company had received more crude Sicilian sulphur than last year, and their total sales of crude and refined were rather less. Consequently the stock had somewhat increased. In England they had sold nearly all the recovered sulphur likely to be received up to the 31st December next, and would carry a smaller stock at the end of the year than was brought in at the beginning. They had also made considerable forward sales of recovered sulphur into next year. Of Sicilian sulphur they had sold some 97,000 tons, deliverable after 31st July last, and had already delivered a considerable portion of it, so that the interim dividend in March next on the preference shares might be regarded as secured.

The Manchester Sewage Scheme.—A special meeting of the City Council will be held on the 25th inst., for the purpose of considering the reply of the Local Government Board to the proposals of the Corporation for the treatment and disposal of the sewage of the city. The Board, as already reported, require that not less than ninety-two acres of filter beds shall be provided, that these beds shall be worked in cycles of not less than eight hours, that certain provision shall be made at Carrington and Flixton for the treatment of storm water and sewage, and that the land there not devoted to that purpose shall be utilised for the treatment of the filtered effluent. These requirements are regarded by the Rivers Committee as unreasonable. In the proceedings against the Corporation for pollution of the Ship Canal, the Lord Mayor promised that a special meeting of the Council should be called to consider the reply of the Local Government Board, and in fulfilment of that promise such meeting has been convened.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are steady at 9d. for 90s, and 10½d. to 11d. for 50/90's. Carbolic acids are very firm, and liquid may be quoted at 1s. 1d., rising. Solvent naphtha is dearer at 1s. 3d. Pitch is still quoted 34s. 6d., f.o.b. East Coast, but on the West Coast 32s. is now asked. With the exception of anthracene, other tar products are steady and promising.

Sulphate of ammonia is all to pieces, and buyers appear to be having things all their own way. Beckton is offering up to the end of the year at £10. 15s. Nearest prompt values are:—London (outside makes), £11. 2s. 6d.; Hull, £11.; and Leith, £11. Nitrate of soda firmer.

MISCELLANEOUS CHEMICAL MARKET.

In chemicals, generally, there is more activity, and all the works in the alkali trade are well engaged with orders. Business for future delivery continues fairly brisk, and a considerable volume of business has been done for next year. For bleaching powder, the price is advanced to £5 10s. softwoods, f.o.r.; and hardwoods, f.o.b. Liverpool, £5 15s. per ton. Caustic soda firm, and there is more business doing both for prompt and forward delivery. As was rumoured, a further advance in price has been made; current quotations, both for prompt and forward delivery, are 5s. dearer for all grades, f.o.b. Liverpool. Alkali, 58%, is firm and in good request at £4. 2s. 6d. bags, makers' works. Soda crystals and bicarbonate are unaltered. Chlorates of potash and soda are the only articles as yet without improvement in position, and prices have even a slightly lower tendency for forward delivery; spot quotations are 3½d. and 3¾d. per lb. respectively. Sulphur firm at £4. 12s. 6d. per ton, f.o.r. Saltcake unchanged at 24s. to 25s. per ton, f.o.r., but only moderate business doing thereat. Nitrate of soda, 7s 6d. to 7s. 7½d. per cwt. Sulphate of copper is active at £25 15s. per ton for prompt, and £25. 10s. per ton forward. For potash, caustic and carbonate, there is good inquiry, and owing to short supplies prices are higher. Yellow prussiate of potash is a turn easier at 7⅞d. Soda, 5½d per lb. Sulphocyanides quiet, and prices unchanged. Sulphate of iron is in better general request. Carbolic acids firm. Brown acetate of lime steady at £5. 7s. 6d. to £5. 10s., c.i.f.; grey, £8. 5s. per ton. White powdered arsenic dearer at £19. 5s., f.o.r. Garston, and more business doing.

REPORT ON MANURE MATERIAL.

There has been no special feature in the market upon which to comment, everything being very quiet.

Quotations for mineral phosphates are unchanged, and no important business has been reported during the week.

The firmer feeling in the market for East Indian bone meal continues, but, so far, buyers have declined to respond to the advanced prices required. The quotation for fine quality, in store, is £5. 5s. per ton, but £5. 2s. 6d. per ton would be cabled out for Nov.-December steamer shipment.

Nitrate of soda is firmer in all positions, and especially in the forward position, the quotation for spring delivery being 8s. per cwt. for ordinary quality. Spot quotations are:—7s. 7½d. per cwt. for ordinary, 7s 9d per cwt. for good, and 7s. 10½. per cwt. for refined quality.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is easier and business is at a standstill unless holders give way considerably in the matter of prices. Olive is only in small request, but prices are fully maintained. Linseed is firm at 23s. 6d. cwt. for Liverpool makes in export casks Cottonseed is dull and somewhat easier, Liverpool refined now being quoted 19s. 6d. to 20s. Castor oil is not moving very freely; small sales are reported in Madras at 2⅞d., and seconds French at 2⅝d.; good seconds Calcutta is quoted 3⅛d., and first pressure French, 3d. Tallow is not selling so freely, and prices have a downward tendency. There is a fairly good inquiry for resin in all grades. Spirits of turpentine are steady at 39s 6d. Petroleum moving quietly, with American 7⅛d. to 8½d., and Russian refined, 6⅛d. to 6½d. per gallon.

CAKES.—American Western linseed have been in fair demand at £7. 5s., but the market is firmer, and sellers are asking £7. 7s. 6d. to £7. 10s.; River Plate, £7. 10s to £7. 15s., and a steady market thereat; Bombay firm, with a fair inquiry at £7. 15s. to £8. per ton; Russian are still nominal in value. Liverpool makes are firmer, the range of prices being £8. 10s. to £8 15s per ton, according to brand. There is no alteration in the value of American decorticated cottonseed. Liverpool makes continue firm and in good demand at £6. 10s. to £6. 15s., according to brand. Liverpool undecorticated, £5. 2s. 6d. to £5. 10s. per ton, according to brand. There is a continued absence of stock of Egyptian on the spot, and the quotation is nominal at £5. to £5. 2s. 6d. per ton.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron firm: Scotch warrants closed at 69s 10½d.; Middlesbrough, 68s. 11d. cash; and hematite, 74s. 11d. Copper firm: Chili bars, G.O B.'s and G.M.B.'s, closed at £75 7s 6d. to £75. 12s. 6d. cash; and £75. 15s. to £76. three months. Tin dearer: Straits closed at £144. 10s to £145. cash; and £144. 15s. to £145 5s three months; English ingots £148. to £149. Lead quiet: Spanish, £16 2s. 6d. to £16. 5s.; English, £16. 10s.; Silesian spelter, ordinary, £22. 5s. Nickel, 1s. 2½d. Antimony, £39. 10s. Quicksilver: first hands, £8. 17s. 6d.; second hands, £8. 17s. *Copper Shares* steady: Cape, 4¾ to 4⅞; Copiapo, 3 11/16 to 3 13/16; Libiola, 1⅝ to 1⅞; Mason & Barry, 3¾ to 4; Rio Tinto, 48 1/16 to 48 1/16; Tharsis, 7⅞ to 8¼.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The market value can hardly be said to have been maintained, to which there are more than one contributing cause. The first is that new season's crops are due on the market any time, and the next, but not least, dearer money, and more so prospectively. The imports for the week have been—linseed, 34,228 qrs. against 11,717 qrs corresponding week a year ago, making a total of 476,429 qrs. against 309,141 qrs. a year ago. Rapeseed *nil* against 4 897 qrs. for week; total, 83,700 qrs. against 62,45; qrs Cottonseed for week, 4,190 tons against 4,220 tons; total, 110,944 tons against 140,738 tons. Oil cake 318 tons against 50 tons for week; total, 16,040 tons against 10,235 tons. Olive oil for week *nil* against 127 tuns; total, 3,392 tuns against 5,625 tuns. Tar for week, 1,544 barrels against 1,314 barrels; total, 12,426 barrels against 6,357 barrels. Linseed oil is steady, being quoted 21s. 3d. spot, and same to the end of year; 21s. 9d sellers first four months; boiled and refined £1. to £1. 10s. per ton extra Refined cotton oil cheaper, with a falling market, being quoted 17s. 6d, spot, naked; 17s. 1½d. Nov.-April; barrels, £1. 10s. and casks £1. per ton extra. Castor oil little changed, Calcutta being quoted 3⅛d per lb. in cases. Resins unchanged. Olive oils from £34. to £36, according to origin. Olive oil soap continues very firm but unchanged. Cod oil, £16. to £19. per ton. Tallow firm, unchanged. Turpentine continues at extreme figures.

CAKES.—Feeding stuffs continue to realise good prices, linseed cakes being very firm. Cotton cakes, on the spot, are easier, linseed cakes being quoted, 95% pure, £8. 12s. 6d to £8 15s Oilcakes (linseed), £7. 5s. to £7. 10s.; Russians, £8.; Americans, £7. 12s. 6d. Cotton cakes quiet.; best makes, £5 to £5. 2s. 6d.; seconds, £4 17s. 6d. to £5.; decorticated, none. Rape cakes: Black Sea, £4. 12s. 6d

PAINTS.—Makers find business dull, and experience difficulty in keeping their hands employed. Prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, Tuesday.

Sulphate of ammonia is certainly weak and idle, but the quotation on this section of the market possesses a certain stiffness, and to-day for spot business the makers are still asking as much as they did at the beginning of last week, that is to say £11. 7s. 6d. f.o.b. Leith There is no forward movement worth mentioning, and the offers coming from the continent are all quite uninducive, for the time being. General chemicals retain their somewhat bettered condition, and there has been some slight advance, even, such as soda crystals for certain destinations, to the extent of 5s. The other heavy lines are firm and unchanged. Mineral oils and paraffins are all pretty strong, and the illuminants increase in deliveries at a good rate as the season advances.

Chief prices current are:—Soda crystals, £2. 7s. 6d. to £2. 15s basis, nett, Tyne: soda ash, £4. 10s to £4. 15s. nett, Tyne; white alkali, £5. to £5. 7s 6d nett, Tyne; alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; caustic soda, white, 74° £9., 70/72° £8 10s., 60/62° £7. 10s, and cream, 60/62° £8., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6. nett, Tyne; saltcake, 26s; borax, English refined, £16., and boracic acid, £25. nett. Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda 2 d, less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 7½d. to 7s 10½d; sulphate of ammonia, £11. 7s. 6d. prompt, f.o b. Leith; salammoniac, first and second white, £35 and £33 nett, any port: sulphate of copper, £25 5s to £25. 10s, less 5% Liverpool; paraffin scale, hard, 2d to 2½d per lb, and soft, 2½d. per lb.; paraffin wax, 120° semi-refined, 3d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1., 6¾ d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating), 865°, £5 10s., 885°, £6., to £6. 10s. and 890/895°, £6. 15s. to £7. Week's imports of sugar at Greenock were 892 hhds., 50 barrels, and 11,300 bags beet, unrefined.

TYNE CHEMICAL REPORT.

Tuesday.

Chemicals are quiet, and though deliveries are fairly good, new business is only slow. Soda crystals are quoted at £2. 12s. 6d. per ton, gross weight, locally. Caustic soda, 70% £8. 10s. per ton, and 76/77%, £9. 5s. per ton, f.o.b. Sulphur steady at £4. 15s. per ton.

Bleaching powder, softs, £5. 15s. per ton, nett; do., hards, £6 per ton, nett; caustic soda, 76/77%, £9. 5s. per ton, nett; do., 70%, £8. 10s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4. 10s per ton, nett; do ,50%, £4. 12s 6d. per ton, nett; do., 52%, £4. 15s per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5 per ton, nett; do., 50%, £5. 3s 9d. per ton, nett; do., 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do, 100° Tw., £3. per ton, nett; do., 140° Tw., £3 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt steady at 9s. 6d. per ton, f o b. Tees.

COALS.—Trade generally still continues firm, and there is more activity in gas coals, best qualities being very scarce. Coke is in strong demand for both export and local consumption at 24s. to 25s. per ton. To-day's prices:—Best Northumbrian steam, 10s 9d. to 11s. per ton; second qualities, 9s. 9d to 10s. per ton; small steam, 7s. to 7s. 6d. per ton; bunker coals, 10s 3d. to 11s. per ton; gas coals, 10s. 6d. to 11s.; coke, 24s to 25s. per ton.

New Companies.

Machine Drying and Peat Fuel Co., Ltd.—Capital £25,000. in £1. shares. This company has been formed to adopt an agreement with F. W. Dunlop, and to experiment on, test, work, develop, sell, license or otherwise turn to account an improved process for drying peat and other materials. The subscribers to the memorandum of association are:—F. W. Dunlop, 3, Tokenhouse Buildings, E.C., engineer; S. Wilson, 16, St. Helen's Place, E.C., engineer; J. Stevens, 9, Fenchurch Avenue, E.C., engineer; M. Crawford, 3, Tokenhouse Buildings, E.C., engineer; W. Brown, 48, Hungerford-road, N., secretary; J. Earle, 77, Lorrimore-street, E.C., housekeeper; E. H. Brown, 25, St. Leonard's-road, East Sheen, clerk.

Vanadium Co., Ltd.—Capital £200,000. in £1. shares. This company has been formed to adopt an agreement with The Alloys Syndicate, Ltd., to acquire and deal with any patents, concessions and rights, to acquire, own, and work any mines and property in Spain or elsewhere, and to carry on the business of miners, smelters, metal workers, chemists, metallurgists, and merchants of ores of all kinds. The subscribers to the memorandum of association are:—P. E Beechcroft, 1, Great Winchester-street, E.C., director; A. C. C. De Renzy, 20, Park Hill, Ealing, Surgeon-Gen. (ret); A S. Evens, 7, Maze Hill, Greenwich, S.E., accountant; P. Sachiari, 88, Westbourne Terrace, gentleman; E. A. Attling, 37, Finsbury Circus, E.C., civil engineer; R. H. Pye, 155, Victoria-street, Westminster, gentleman; A. F. Weiner, 48, Upper Bedford Place, gentleman. Registered office, 31, Lombard-street, E.C.

North American Oil Lands, Ltd.—Capital £75,000. in £1. shares. This company has been formed to acquire certain oil or natural gas producing lands situated on the oil belt in Western Virginia, Pennsylvania, Ohio, Tennessee and elsewhere in the U.S.A., to acquire and deal with oil or natural gas bearing properties in North America or elsewhere, to adopt certain agreements with the Pittsburg Syndicate and to develop and work any petroleum oil, gas, gold, silver, copper, iron, coal and mineral deposits, timber and other rights, lands and property of all kinds. The subscribers to the memorandum of association are:—W. Scott, 30, Plough-road, Clapham Junction, clerk; F. A. Frinneby, 12, Clitheroe-road, Clapham Rise, S.W., accountant; F. V. Bance, 21, Warriner Gardens, Battersea Park, S.W., clerk; W. H. Pendred, 27, Star-street, Bayswater, W., clerk; John Moulds, 82, Abbeyfield-road, Rotherhithe, S.E., clerk; H. B. J. Chudleigh, St. Juliott, Cleveland-road, Ilford, gentleman; A. O. Chudleigh, 54, Old Broad-street, E.C., gentleman.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending October 7th.

Acetate of Lime—
U. States, 514 pks. Gillespie Brs. & Co.

Acetic Acid—
Holland, 10 pks. R. W. Greeff & Co.

Alkali—
France, 5 t. 9 c. J. Harrison
" 5 10 J. Barber & Co.

Alum—
Holland, 3 pks. Netherlands S. B. Co.

Ammonium Chloride—
Germany, 3 pks. L. & I. D. Jt. Co.

Ammonium Muriate—
Holland, 8 pks. H. Lorenz

Ammonium Phosphate—
Holland, 67 pks. London Non-Flammable Wood Co.

Antimony Ore—
Spain, 10 t. J. J. Pratt & Son
Melbourne, 18 James & Shakespeare

Arsenic—
Portugal, 118 pks. Coverley & Westray

Barium—
Germany, 4 pks. H. Johnson & Sons
Holland, 4 "

Barium Sulphate—
Germany, 10 pks. Drolenvaux & Beemner
Belgium, 82 O'Hara & Hoare

Baryta—
Holland, 24 pks. O'Hara & Hoare
" 243 W. Harrison & Co.
" 122 R. W. Greeff & Co.
Germany, 151 J. L. Lyon & Co.
Belgium, 1, 03 "

Bleaching Powder—
Germany, 150 pks. J. M Steel & Co.
Holland, 5 "

Bones—
Sydney, 11 t. Hicks, Nash, & Co.

Caoutchouc—
Straits, 11 t. 8 c. H. Kiver & Co.
" 50 1 Huttenbach & Co.
" 24 18 L. & I. D. Jt. Co.
" 23 8 E. Boustead & Co

Bones, 15 1 L. & I. D. Jt. Co.
" 3 Anderson, Weber, & Smith
Natal, 18 J. T. Rennie, Son, & Co.
France, 1 7 Major & Field
Thursday Is., 3 Prop. Bull Wf.
Chinde, 1 L. & I. D. Jt Co.
Saigon, 2 Anderson, Weber & Smith
Mauritius, 5 R. Ulrich

Castor Oil—
France, 65 brls. Beresford & Co.
E. Indies, 200 cs. R. G. Hall & Co.
Italy, 25 Barron, Harveys, & Co.
" 60 H. T. Love & Co.
" 21 Hodgkinson, Clarke, & Co.

Caustic Potash—
France, 8 pks. Petri Brs.

Caustic Soda—
Germany, 3 c. H. Johnson & Sons

Chemicals *(otherwise undescribed)*
Holland, £80 Netherlands S. B. Co.
Germany, 12 Argo S. S. Co.
,, 10 W. J. W. Childs
,, 8 R. W. Greeff & Co.
U. States, 6 W. Adamson & Co.
,, 895 H. Harkness
Belgium, 108 S. C. Jones
,, 8 F. Claydon & Co.
,, 80 T. Palmer
Japan, 310 W. M. Smith & Sons
,, 200 H. J. Perlbach & Co.
Egypt, 17 J. Harrison

Chromium Oxide—
Germany, 1 pk. Taylor Brs.

Citrate of Lime—
Italy, 32 pks. W. C. Bacon & Co.
,, 11 A. E. Piggott

Coal Products—
Creosote
Germany, 50 g. Argo S. S. Co.
Pitch
U. States, 101 cks. F. Gardner
N. Russia, 90 brls. Abbey, Abbey, & Co.
Tar
N. Russia, 198 brls. Mordaunt Brs.
,, 977 Linck, Moeller, & Co.

Colours—
Holland, 40 dms. J. Barber & Co.

Copper Sulphate—
Germany, 18 pks. Charles & Fox

Cream of Tartar—
Holland, 34 pks. Kirkpatrick, Barr, & Co.
France, 5 W. C. Bacon & Co.
,, 20 F. C. Devon & Co.
,, 5 M. Ashby, Ld.
Italy, 50 W. C. Pantin

estuffs—
Cochineal
Canaries, 62 pks. W. M. Smith & Sons
,, 18 Swanston & Co.
Cutch
Rangoon, 100 pks. Elkan & Co.
,, 325 A. Howden & Co.
E. Indies, 7 H. A. Litchfield & Co.
Extracts
U. States, 12 pks. W. Shelcott & Sons
Belgium, 15 Leach & Co.
,, 15 L. J. Levinstein & Sons
Denmark, 6 Burton, Baker, & Co.
Canada, 110 Boutcher, Mortimore & Co.
France, 68 Millers' Tanning Extract Co.
Gambier
Straits, 823 pks. W. Pope & Co.
,, 513 Brown & Elmslie
,, 751 Brinkmann & Co.
Belgium, 478 P. & O. Co.
Indigo
Azores, 2 srns. L. & I. D. Jt. Co.
Portugal, 1 Tatham, Bromage, & Co.
Straits, 11 chts. Schonlank, Engel, & Co.
Myrabolams
E. Indies, 179 pks. J. Graves
,, 2,734 H. J. Perlbach & Co.
,, 683 W. Shelcott & Co.
Orchella
Straits, 14 pks. Beresford & Co.
Shumac
Italy, 250 pks A. Slator & Co.
Tanners' Bark
Belgium, 11 t. Leach & Co.
Adelaide, 51 ,,
,, 21 A. & W. Nesbitt
Natal, 6 Flack, Chandler & Co.
,, 35 J. T. Rennie, Son, & Co.
N. Russia, 2 Globe Mills Co.
Valonia
A. Turkey, 175 t. Hicks, Nash, & Co.
,, 163 A. B. Curtis & Co.

Farina—
Germany, 100 pks. J. Knill & Co.
,, 10 R. Bennett & Co.
Holland, 250 ,,
,, 350 J. Barber & Co.

Glucose—
Germany, 32 pks. 258 c. Beresford & Co.
France, 250 813 J. Kitchin
,, 250 250 W. E. Cole
U. States, 50 306 Barrett, Tagant, & Co.
,, 1,925 10,000 H. A. Litchfield & Co.
,, 100 590 L. Norman & Co., Ld.
,, 200 1,170 Ohlenschlager Brs.
,, 25 75 G. Clarke & Son
,, 1,199 4,674 R. G. Hall & Co.

Glue—
France, £129 Mory & Co.
,, 25 W. E. Cole
,, 593 T. M. Duche & Sons
Belgium, 10 Leach & Co.
,, 275 Becker & Wagner
,, 275 G. E. Banes
Holland, 40 T. H. Lee
Germany, 180 L. & I. D. Jt. Co.
,, 93 Argo S. S. Co.
,, 15 Becker & Wagner
,, 13 D. Magnus
,, 50 H. Lambert
,, 113 M. Dk. Co.

Guano—
Ichaboe Is., 843 t. R. Bensusan

Gutta Percha—
Straits, 20 t. Prop Bull Wf.
,, 18 17 c. Huttenbach & Co.
,, 15 1 Anderson, Weber, & Smith
,, 28 10 H. W. Jewsbury & Co.
,, 9 L. & I. D. Jt. Co.
,, 6 13 W. Pope & Co.

Gypsum—
Germany, 23 t. Brasch & Rothenstein

Litharge—
Germany, 6 pks. H. Lambert
Holland, 10 J. Owen

Lysol—
Germany, £30 A. & M. Zimmermann

Manure—
Holland, 6 t. J. Barber & Co.
Germany, 60 F. W. Berk & Co.
Belgium, 50 E. A. Barnett
E. Indies, 200 T. T. Creed
,, 100 McDougall & Bronthron
,, 300 Walker, Howard, & Co.

Methylic Alcohol—
U. States, 100 brls. Parker & Co.

Molasses—
U. States, 402 cks. 2,265 c. Ohlenschlager Brs.
,, 300 515 J. Forsey

Ochre—
Holland, 83 pks. Phillipps & Graves
France, 217 W. Harrison & Co.
,, 40 Smiths & Co.

Orange Lead—
Germany, 7 pks. D. Storer & Sons

Phosphates—
Holland, 5 t. W. Balchin, Ld.
France, 200 A. Hunter & Co.

Potash—
Germany, 56 pks. T. H Lee

Potash Lye—
Sweden, 16 dms. F. W. Berk & Co.

Potassium Carbonate—
France, 2 t. W. E. Cole
U. States, 2 15 c. J. Barber & Co.
Germany, 3 5 Petri Brs.
Canada, 7 12 Charles & Fox

Potassium Muriate—
Germany, 150 pks. F. W. Berk & Co.

Potassium Sulphate—
Germany, 500 bgs. Anglo-Continental Guano Works
,, 1,000 A. Hunter & Co.

Pyrogallic Acid—
Germany 5 pks. L. & I. D. Jt. Co.

Red Lead—
Germany, 38 pks. Taylor Brs.
,, 7 Randall Brs.
,, 6 Steinhoff, Sons, & Co.
,, 15 J. Maeton

Rosin—
U. States, 5,014 brls. F. & S. Chiesman & Co.
Holland, 3 brls. J. Owen

Salicylic Acid—
Germany, 19 pks T. H. Lee

Salt—
Portugal, 21 t. L. & I. D. Jt. Co.

Saltpetre—
E. Indies, 935 bgs. Perkins & Homer
,, 1,097 Lucas & Spencer's Wf.
,, 122 Scrutton, Sons, & Co.
Germany, 350 S. E. Rly. Co.
,, 55 pks Paul Hecker & Co.

Silver Nitrate—
Germany, 3 pps. T. H. Lee

Soda Crystals—
Belgium, 10 t. 4 c. Wilson & Co.
,, 16 Leach & Co.
,, 25 J. Robertson

Sodium Bicarbonate—
Germany, 2 t. 2 c. T. H. Lee

Sodium Hyposulphite—
Germany, 6 t. 4 c. H. Lambert
Holland, 175 pks. R. W. Greeff & Co.

Sodium Nitrate—
Chile, 1,807 bgs. Anglo-Continental Guano Works

Sodium Prussiate—
Belgium, 18 pks. A. G. Robinson & Co.
,, 18 J. Owen

Starch—
Austria, 65 pks. Bellamy's Wf., Ld.
France, 45 A. C. Hitchcock
,, 450 W. E. Cole
,, 450 E. & T. Pink
,, 40 Sollas & Sons
Germany, 40 Argo S. S. Co.
,, 300 Seaward Brs., Ld.
,, 14 T. H. Lee
,, 1,740 Phillipps & Graves
,, 900 Horne & Co.
U. States, 160 J. Forsey
,, 911 C. Tennant, Sons & Co.
,, 40 R. G. Hall & Co.
Belgium, 470 T. H. Lee
,, 600 T. Ronaldson & Co.
,, 820 Becker & Wagner
,, 114 Leach & Co.
Holland, 100 Hernu, Peron, & Co.
A. Turkey, 80 A. G. Robinson & Co.
,, 2,615 Little & Johnston

Stearine—
Holland, 17 cks. W. von Rourberg
France, 75 bgs. H. Hill & Sons
Belgium, 98 ,,
,, 101 J. Harrison
,, 63 J. W. Baker

Sulphur—
Italy, 10 t Chilworth Gunpowder Co.
,, 10 F. Smith
,, 10 Taylor Brs.
,, 10 W. Harrison & Co.
,, 6 C. Tennant, Sons & Co.
,, 15 J. Greig
,, 5 J. Puddy & Co.
,, 50 G. Boor & Co.

Sulphuric Acid—
Germany, 56 pks. H. Lambert

Tallow—
U. States, 10 bxs. Lunham & Moore
,, 10 cks. ,,
,, 94 L. Thompson & Co.
,, 20 Fielder, Hickman & Co.
N. Zealand, 402 Flack, Chandler, & Co.
,, 5 Culverwell, Brooks, & Co.
,, 75 Mordaunt Brs.
,, 3 Anning & Cobb
,, 539 Phillipps & Graves
,, 31 Lucas & Spencer's Wf.
,, 35 Brown & Elmslie
,, 600 Goad, Rigg, & Co.
,, 37 Dalgety & Co., Ld.
,, 20 Leach & Co.
,, 433 Beresford & Co.
,, 30 J. Graves
,, 104 Deering & Robottom
Victoria, 59 Phillipps & Graves
,, 12 pks. Goad, Rigg, & Co.
N.S.W., 331 cks. Concordia Wf.
,, 137 Elkan & Co.
,, 97 Aust. Estates & Mort. Co.
,, 381 G. S. Yuill & Co.
,, 7 Cuthbert & Hall
,, 40 Union Ltge. Co., Ld.
,, 537 Goad, Rigg, & Co.
,, 172 Culverwell, Brooks, & Co.
,, 240 Aust. Meat Co.
,, 178 Kleinworth, Sons & Co.
,, 408 Phillipps & Graves
,, 54 T. T. Creed
,, 246 Hoare, Wilson, & Co.
Queensland, 163 Mordaunt Brs.
Sweden, 100 Phillipps & Graves
Holland, 7 Armour & Co.
Germany, 39 Fellows, Morton, & Co.

Ultramarine—
Holland, 18 pks. J. Barber & Co.
,, 5 Netherlands S. B. Co.
,, 2 G. S. N. Co.
Germany, 7 Argo S. S. Co.

Varnish—
U. States, 25 pks. Atlantic Transport Co.

Verdigris—
France, 4 pks. B. & F. Wf. Co., Ld.

White Lead—
Belgium, 30 pks. T. & W. Farmiloe, Ld.
,, 29 J. L. Lyon & Co.
,, 23 Leach & Co.
Germany, 21 N. J. Fenner & Co.
,, 44 Taylor Brs.
,, 5 H. Lambert
,, 10 Haeffner, Hilpert, & Co.
,, 21 Soundy & Sons
,, 22 H. B. Alder & Co.
,, 52 D. Storer & Sons
Holland, 28 Burnell & Co.

Wolfram Ore—
Australia, 25 t. H. Grey, junr.
,, 26 L. & I. D. Jt. Co.
Queensland, 25 ,,

Wood Pulp—
Sweden, 2,600 pks. Henderson, Craig, & Co.
,, 508 Tough & Henderson
,, 300 C. B. R. Maltby
,, 254 H. Raby & Mather
Germany, 40 W. Friedlaender
,, 468 T. H. Lee
,, 430 J. Graves
Holland, 62 Thames S. T. & L. Co., Ld.
,, 40 Netherlands S. B. Co.
Canada, 800 E. Lloyd, Ld.

Zinc Chloride—
Germany, 16 pks. H. Wallace & Co.

Zinc Oxide—
Germany, 10 pks. M. Ashby, Ld.
,, 500 Soundy & Sons
,, 50 J. Matton
Holland, 40 M. Ashby, Ld.
France, 50 Kerestedji & Co.

Zinc Sulphate—
Germany, 33 pks. F. Smith

Zinc White—
Germany, 50 pks. N. J. Fenner & Co.
Holland, 15 H. Johnson & Sons

LIVERPOOL.

Week ending October 5th.

Antimony—
Constantinople, 845 bgs.

Arsenic—
Hamburg, 20 kgs.

Bone Ash—
Gd. Canary, 350 bgs. Munster, Semms, & Co.

Bones—
Pernambuco, 19 bgs.

Boracic Acid—
Leghorn, 101 cks.

Borate Lime—
Hamburg, 1,350 bgs.

Castor Oil—
Calcutta, 291 cs. Ralli Brs.
Leghorn, 20 ,,

Chrome Ore—
Syra, 300 t. Geo. G. Blackwell, Sons, & Co.

Coal Products—
Pitch
Pensacola, 223 pcs. R. Coltart & Co.
Tar
W. C. Africa, 1 brl.

Colours—
Hamburg, 8 cs.
Stettin, 35 cks. Evans, Sons, & Co.

Cottonseed Oil—
New York, 102 brls.
Newport News, 225

Cream of Tartar—
Barcelona, { 5 bts. 10 cks. 12 hhds.
Bordeaux, 26 cks.

Dyestuffs—
Extract
Bordeaux, 720 cks. R. J. Francis & Co.
Ghent, 20 ,,
Havre, 8 cs. 20 Cunard S.S. Co.
Montreal, 2 brls. Rh. Dyewood & Chem. Co.
New York, 200 McArthur & Co.
,, 56 cks. West Indies Chem. Wks., Ld.

Rotterdam, 20 cks.
Fustic
Savanilla, 2,451 bgs. L. Delins & Co.
Saffron
Valencia, 2 cs.
Sumac
Palermo 300 cs.
Valonia
Constantinople, 161 bgs.
Syra, 202
Gelatine—
Hamburg, 3 cs.
Glue—
Antwerp, 2 cks.
Hamburg, 10 bgs.
Rotterdam, 5 cks. / 1 cs.
Gutta Percha—
Akassa 24 bgs. Royal Niger Co.
Burutu, 112 ,,
Lead Acetate—
Hamburg, 16 cks.
Linseed Oil—
New York, 25 brls.
Lithopone—
Rotterdam, 60 cks.
Mineral White—
Genoa, 30 bgs. Marwood & Co.
Ochre—
Alicante, 20 sks.
Paint—
Boston, 2 cs.
Conakry, 1 kg.
Gd. Bassam, 10 cks.
New York, 10 brls. Anglo-Cont. Guano Wks.
Paraffin Wax—
New York, 990 brls.
,, 150 cs. 500 Anglo-Am. Oil Co.
Phosphates—
Ghent, 200 t. J. T. Fletcher & Co
,, 100
Potash—
Montreal, 25 brls.
Stettin, 19 cks. Sachse & Klemm
Pyrites—
Huelva. 3,384 t. Matheson & Co.
Red Lead—
Rotterdam, 65 cks.
Rosin—
461 brls.
Salt—
W. C. Africa, 1,030 bgs.
Saltpetre—
Calcutta, 1,038 bgs. Ralli Brs.
Hamburg 125 kgs. / 20 cks.
Soap—
N. Orleans, 1,690 brls.
New York, 1,000 bxs. B. T. Babbitt
,, 2,500
Boston, 50
Rotterdam, 40
Antwerp, 3 cs.
Newport News, 412
Havre, 25 pks. 32 Cunard S.S Co.
W. C. Africa, 1 kg.
Soap Stock—
Leghorn, 31 brls.
Soapstone—
Bordeaux, 200 bgs. Geo. G. Blackwell, Sons, & Co.
Sodium Bichromate—
Hamburg, 28 cks.
Starch—
Newport N., 1,200 sks.
,, 125 brls. J. Howard & Co.
New York, 30
Antwerp, 5 cs. J. T. Fletcher
Rotterdam, 230
Hamburg, 68 / 80 pks.
Stearine—
Rotterdam, 7 bls.
Tallow—
Montreal, 59 brls.
Newport News, 499 tcs.
Tartaric Acid—
Hamburg, 3 cks.
Tin Salt—
Hamburg, 5 cks.
Ultramarine—
Bremen, 12 cks.
Varnish—
New York, 30 brls. W. G. Warren
,, 1 bx. 20
White Lead—
Rotterdam, 40 cks.
Wood Pulp—
Quebec, 595 bdls. A. Wortheim & Co.
Rotterdam, 154 bls.
Zinc Oxide—
Antwerp, 9 brls.
Rotterdam, 10 / 40 cks.
Zinc White—
Rotterdam, 79 cks.

MANCHESTER.

Week ending October 7th.

Acetic Acid—
Rotterdam, 12 blns.
Aluminium—
Treport, 1 cs.
Antimony—
Treport, 2 cks.
Barytes—
Antwerp, 250 bgs.
Caustic Potash—
Treport, 39 dms.
Coal Products—
Aniline Salt
Rotterdam, 6 crts.
Toluol
Rotterdam, 1 ck.
Colours—
Hamburg, 4 cks. 2 cs.
Rotterdam, 248 45
Rouen, 1
Treport, 6
Dyestuffs—
Extract
Antwerp, 6 brls.
New York, 57 / 25 cs.
Rotterdam, 11 cks.
Rouen, 15 1
Treport, 2
Farina—
Hamburg, 100 bgs.
Gelatine—
Hamburg, 40 bgs.
Glue—
Rotterdam, 20 bgs. 10 cs.
Treport, 12 cks. 20 bls.
Lead Acetate—
Rotterdam, 18 cks.
Limestone—
Antwerp, 3 crts.
Litharge—
Rotterdam, 12 cks.
Manganese—
Hamburg, 27 cks.
Ochre—
Treport, 17 cks.
Paraffin Wax—
New York, 45 brls.
Potash—
Hamburg, 31 dms.
Potash Lye—
Hamburg, 25 dms.
Sodium Nitrate—
Rotterdam, 4 cks.
Sodium Phosphate—
Antwerp, 12 cks.
Starch—
Antwerp, 765 cs.
Montreal, 2,700 bgs.
New York, 2,820
Hamburg, 50
Rotterdam, 210
Stearine—
Antwerp, 63 bgs.
Rotterdam, 95 64 bls.
Sulphuric Acid—
Rotterdam, 20 cks.
Tallow—
New York. 5 hds.
Tannic Acid—
Hamburg, 6 cks.
Tartar Emetic—
Hamburg. 13 cks.
Ultramarine—
Hamburg, 6 cks.
Rotterdam, 2
Varnish—
Hamburg, 11 pks.
Montreal, 2 cs.
Waste Salt—
Hamburg, (a lot)
Wood Pulp—
Fortune, N'fd. 2,500 lds
Frano, 300 bls. W. H. Stott & Co.
Gefle, 8,513
Kallero, 2,255
Zinc Oxide—
Antwerp, 10 cks.
New York, 200 brls.
Rotterdam, 20 40

HULL.

Week ending October 7th.

Acetic Acid—
Ghent, 20 crbys. Wilson, Sons, & Co., Ld.
Acids—
Rotterdam, 12 cks. Hull & Netherlands S. S. Co.
Alumina Sulphate—
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.
Aluminium—
New York, 96 bxs. Wilson, Sons, & Co., Ld.
Antimony—
Hamburg, 5 cs. Wilson, Sons, & Co., Ld.
Trieste, 30 brls. ,,
Asbestos—
Hango, 1,024 bgs.
Barytes—
Amsterdam, 91 cks. Hull & Netherlands S. S. Co.
Antwerp, 105 Wilson, Sons, & Co. Ld.
Bremen, 20 G. Holmes & Co.
,, 54
Rotterdam, 22 Hull & Netherlands S S. Co.
Chemicals *(otherwise undescribed)*
Rotterdam, 1 brl. Hull & Netherlands S. S. Co.
Coal Products—
Alizarine
Rotterdam, 69 brls. Hull & Netherlands S. S. Co.
114 pks
Aniline
Amsterdam, 2 bxs. Hull & Netherlands S. S. Co.
Rotterdam, 87 pks. ,,
Naphtha
New York, 3,677 brls.
Pitch
Amsterdam, 3 cks. Hull & Netherlands S. S. Co
Konigsburg, 3 brls.
Tar
Konigsberg, 180 brls.
Stockholm, 150 Wilson, Sons, & Co., Ld.
Uleaborg, 1,100 J. M. Hamilton & Co
Tar Oil
Hamburg, 60 brls.
Colours—
Amsterdam, 1 ck. Hull & Netherlands S. S. Co.
Antwerp, 8 cs. Bailey & Leetham, Ld.
,, 24 pks Wilson, Sons, & Co., Ld.
Dunkirk, 3 ,,
Ghent, 28 ,,
Fiume, 50 bgs.
Hamburg, 6 cs. ,,
,, 5 cks.
Rotterdam, 5 pks. ,,
,, 19 cks. / 60 pks / 18 brls. / 2 bxs. Hull & Netherlands S. S. Co.
Dextrine—
Harlingen, 13 bls. Hull & Netherlands S. S. Co
Dyestuffs—
Extracts
Trieste, 56 brls. Wilson, Sons, & Co., Ld.
Fustic
Trieste, 51 t. Wilson, Sons, & Co., Ld.
Myrabolams
Bombay, 2,697 bgs.
Indigo
Rotterdam, 28 brls. Hull & Netherlands S. S. Co.
Sumach
Palermo, 450 bgs.
Trieste, 20 Wilson, Sons, & Co., Ld.
Farina—
Harlingen, 503 bls. Hull & Netherlands S. S. Co.
Stettin, 932 bgs.
Glucose—
Hamburg, 10 cks. Wilson, Sons, & Co, Ld.
New York, 505 brls. ,,
,, 50
Stettin, 200 bgs.
Glue—
Christiansand, 3 kgs. Wilson, Sons, & Co., Ld.
New York, 10 cs, ,,
Philadelphia, 10 brls. ,,
Glue Stock—
Hamburg 85 bls. Wilson, Sons, & Co., Ld.
Rouen. 20 ,,
Lead Acetate—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.
Lithopone—
Hamburg, 8 cks.
Logwood—
Hamburg, 5,524 pcs. Wilson, Sons, & Co., Ld.
Manure—
Kurrachee, 3,313 bgs.
Paint—
Amsterdam, 6 dms. Hull & Netherlands S. S. Co.
4 cs.
Rotterdam. 14 brls. ,,
Paraffin Wax—
New York, 451 brls.
Potash—
Dunkirk, 40 dms. Wilson,
12 cks. Sons, & Co., Ld.
Hamburg, 20 kgs. / 500 bgs. / 14 cks.
New York, 6
Red Lead—
Amsterdam, 8 cks. Hull & Netherlands S. S. Co.
Rosin—
Savannah, 1,375 brls.
Soap—
Bari. 21 cs.
Molfetta, 4 Wilson, Sons, & Co., Ld.
Soda—
Antwerp, 114 pks. Wilson, Sons, & Co., Ld.
Ghent, 100 bgs. ,,
Hamburg, 1 ck. W. R. Todd
Sodium Sulphide—
Boston, 30 brls. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 30 bgs. Hull & Netherlands S. S. Co.
Antwerp, 20 cs. Wilson, Sons, & Co., Ld.
,, 400
,, 120 Bailey & Leetham, Ld.
Bremen, 2,529 pks. Veltmann & Co.
Ghent, 163 cs. Wilson, Sons, & Co, Ld.
New York 250 bgs. ,,
Stearine—
Antwerp, 152 bgs. Wilson, Sons, & Co., Ld
Sulphur—
Catania, 709 bgs. Wilson,
29 brls. Sons, & Co., Ld.
,, 20
900 bgs.
Tallow—
Boston, 130 trcs. Wilson, Sons, & Co., Ld.
Bremen, 2 cks. ,,
Dunkirk, 203 ,,
Tartaric Acid—
Bari, 74 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 2 Hull & Netherlands S. S. Co.
Turpentine—
Hamburg, 10 cks. Wilson, Sons, & Co., Ld.
Savannah, Ga., 2,325 brls.
Ultramarine—
Bremen, 16 cks.
Rotterdam, 9 Hull & Netherlands S. S. Co

Varnish—
Stockholm, 5 cs. Wilson, Sons, & Co., Ld.

White Lead
Amsterdam, 23 cks. Hull & Netherlands S. S. Co
Dunkirk, 10
Rotterdam, 46 ,,

Wood Pulp—
Abo, 392 bls. J. Good & Sons
,, 12
Christiania, 700 bls Wilson Sons, & Co. Ld.
Drontheim, 360 pks. ,,
Gothenburg, 398 ,,
Hamburg, 200 bls. ,,
,, 160 pks. Bailey & Leetham, Ld
Jacobstad, 683 fthms. Pyman Bell, & Co.
New York, 1,087 rolls Wilson, Sons, & Co., Ld
Norrkoping, 400 bls.
Stettin, 2 pks. ,,

Zinc Oxide—
New York, 110 brls.
Rotterdam, 5 cks. Hull & Netherlands S. S. Co.

Zinc White—
Rotterdam, 4 cks.

GLASGOW.

Week ending October 12th.

Acetate of Lime—
Gothenburg, 20 bgs.

Antimony Salt—
Hamburg, 8 cs.

Barium Sulphate—
Antwerp, 500 bgs. 17 cks.

Barytes—
Amsterdam, 22 cks.
Hamburg, 20 bgs.

Bichromate—
Hamburg, 20 cks.

Bleaching Powder—
Rotterdam, 40 cks. J. Rankine & Son

Borax—
Havre, 5 cs.

Castor Oil—
Antwerp, 24 cks.

Coal Products—
Alizarine
Rotterdam, 43 cks. 1 cs. 5 bxs. 24 brls. J. Rankine & Son
Aniline
Rotterdam 15 cks. J. Rankine & Son
Aniline Colours
Amsterdam, 1 ck.

Tar Oil
Antwerp, 24 cks.

Colours—
Hamburg, 1 cs. 10 cks.
Rotterdam, 129 pks. 1 cs. J. Rankine & Son

Dextrine—
Baltimore, 15 bgs.

Dyestuffs—
Extract
Baltimore, 20 brls.
Rouen, 4 cks.

Farina—
Delfszyhl, 325 bgs. J. Rankine & Son

Gelatine—
Rotterdam, 5 cs. J. Rankine & Son

Glucose—
Baltimore, 200 brls.
New York, 270

Glue—
Rotterdam, 55 bgs. J. Rankine & Son
Rouen, 14 bls.

Lead Acetate—
Amsterdam, 11 cks.

Magnesium Carbonate—
Hamburg, 10 cks.

Ochre—
Rouen, 91 cks.

Oxide of Iron—
Montreal, 125 kgs. 109 brls.

Paint—
Montreal, 20 cs.
New York, 1

Paraffin Wax—
Philadelphia, 300 brls.

Potash—
Hamburg, 40 cks. 20 dms.

Pyrites—
Huelva, 2 137 t. Tharsis Sulphur & Copper Co.

Red Lead—
Rotterdam, 5 cks. J. Rankine & Son

Rosin—
Baltimore, 194 brls.

Saltpetre—
Hamburg, 3 cks.

Soap—
Baltimore, 200 brls.
New York, 1,000 bxs.

Starch—
Antwerp, 110 cs
New York, 600 sks.
Rotterdam, 53 cs. J. Rankine & Son

Stearine—
Amsterdam, 60 bgs

Tartar—
Oporto, 3 cks.

Tartaric Acid—
Rotterdam, 10 cks. J. Rankine & Son

Ultramarine—
Rotterdam, 5 cs. J. Rankine & Son

Varnish—
New York, 4 brls.

White Lead—
Rotterdam, 11 cks. 11 pks. J. Rankine & Son

Wood Pulp—
Christiania, 283 bls.
Gothenburg, 3,666
Oporto, 250

Zinc Oxide—
New York, 150 brls.
Rotterdam, 50 cks. J. Rankine & Son

Zinc White—
Rotterdam, 25 cks. J. Rankine & Son

TYNE.

Week ending October 7th.

Alum Earth—
Hamburg, 85 cks. Tyne S. S. Co.

Asbestos—
Hamburg, 1 crte. 78 bgs. 8 bls. Tyne S. S. Co
Rotterdam, 1 55 bgs. ,,

Colours—
Antwerp, 2 cs. Tyne S. S. Co.
Hamburg, 1 ck. ,,
Rotterdam, 2 brls. 2 cks. ,,

Glue—
Antwerp, 18 bls. Tyne S. S. Co.

Limespar—
Hamburg, 500 bgs.

Manure—
Antwerp, 200 t.

Ochre—
Rouen, 162 cks.

Phosphate—
Antwerp, 180 t. Blaydon Manure Co.

Salt—
Hamburg, 400 t. Clephans & Wiencke

Soap—
Rotterdam, 12 cs. Tyne S. S. Co.

Starch—
Antwerp, 140 cs. Tyne S. S. Co.
Rotterdam, 136 ,,

Tartaric Acid—
Rotterdam, 18 cks. Tyne S. S. Co.

Wood Pulp—
Christiania, 840 bls. P. H. Matthiessen & Co.
Gothenburg, 404

GOOLE.

Week ending October 4th.

Alkali—
Calais, 9 cks.

Barytes—
Antwerp, 205 bgs.
Rotterdam, 22 cks.

Caoutchouc—
Boulogne, 7 cks.

Colours—
Boulogne, 2 cks. 18 pks.
Ghent, 1
Hamburg, 15 3 cs.
Rotterdam, 364 75

Farina—
Hamburg, 200 bgs.

Glucose—
Calais, 100 bgs.

Glue—
Antwerp 7 bgs.
Boulogne, 3 cks. 10 bs.
Dunkirk, 2 10 bgs.
Hamburg, 10

Logwood—
Belize, 2,303 t.

Paint—
Boulogne, 8 cks.

Phosphates—
Calais, 2,540 bgs.
Ghent, 1,818

Potash—
Calais, 44 dms.

Potassium Sulphate—
Dunkirk, 7 cks. 40 dms.

Plumbago—
Boulogne, 6 cks.

Pyrites—
Huelva, 1,2 7 t.

Saltpetre—
Hamburg, 41 cks.

Starch—
Ghent, 133 cs.
Rotterdam, 20

Waste Salt—
Hamburg, 170 t.

GRIMSBY

Week ending October 7th.

Caoutchouc—
Hamburg, 19 cs.

Chemicals *(otherwise und scr bed)*
Hamburg, 7 cks. 101 cs.
Rotterdam, 12 pks.

Colours—
Antwerp, 136 pks
Hamburg, 68 cks. 109 10 cs.
Rotterdam 7 kgs. 20 bgs.

Wood Pulp—
Gothenburg. 160 bs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending October 11th.

Acids—
Singapore, 14 cs. £28

Ammonia—
Durban, 10 cs £13
Sydney, 30 41

Ammonium Carbonate—
B. Ayres, 1 t. £35
Antwerp, 12 15 c. 39
Hamburg 51 cks. 123

Ammonium Muriate—
Kobe, 3 t. 8 c. £71
Cologne, 17 cks. 91

Ammonium Sulphate—
Yokohama, 102 t. 5 c. £1,076

Arsenic—
Wellington, 1 t. 10 c. £35
Napier, 10 209

Bleaching Powder—
Auckland, 5 t. 7 c. £34

Borax—
Fremantle, 10 c. £9
Rotterdam, 50 cks. 75

Calcium Carbide—
Perth, 19 c. £22

Carbonic Acid Gas—
Channel Is., 30 tubes £11

Carbon Bisulphide—
Otago, 60 dms. £20

Caustic Potash—
Townsville, 1 t. 1 c. £68
E. London, 1 10

Caustic Soda—
Wellington, 12 c. £7
Dunedin, 2 t. 46
Melbourne, 4 75
Townsville, 4 11 200
Auckland, 15 18 148

Chemicals *otherwise undescribed*
Shanghai, 1 cs £14
Pt. Elizabeth, 13 56
Fremantle, 23 90
Brisbane, 36 pks. 31
Antwerp, 4 cks. 23
B. Ayres, 14 64
Brisbane, 20 kgs. 121 100
Durban, 3 16
Adelaide, 1 10
Toronto, 7 77
Rotterdam, 18 4 cks. 117 420
Montreal, 2 11 56
Sydney, 24 65
Lyttelton, 5 22
Dunedin, 214 77
Lyttelton. 13 46
New York, 78 455
Calcutta. 1 15
Cape Town, 18 6 81
Melbourne, 68 49
Auckland, 93 25 86
Kobe, 4 40
Sydney, 15 3 219
Hamburg, 33 dms. 112

Citric Acid—
Singapore, 2 c. £17
Hong Kong. 1 9
St. Petersburg, 2 cks. 5 195
Karachi, 1 cs. 8
Durban, 1 8
Brisbane, 10 71
Melbourne, 1 t. 1 149
Bombay, 1 10
Lisbon, 5 39

Coal Products—
Alizarine
Boston, 12 cks. £163
St. Petersburg, 14 cs. 5 3
Aniline
Auckland, 1 cs. £12
Melbourne, 2 25
Sydney, 1 8
Aniline Oil
Genoa, 12 dms. £300
Benzol
Hamburg. 25 cks. £38
Carbolic Acid
Melbourne, 100 dms. £45
New York, 10 cks. 80
Yokohama, 100 316
Naphtha
Dunedin, 214 pks. £20
Naphthaline
Calcutta, 40 kgs. 25 cks 40 cs. £81
Hamburg, 6 53
Ruhrort, 716 bgs. 160
Pitch
Launceston, 6 brls. £5
Antwerp, (in bulk) 135
Rangoon, 80 cks. 21
Melbourne, 11 pks. 10
Dunedin, 10½ 5
Helsingfors, 440 t. 551
Amsterdam, 1,200 1,800

Pyridine
Hamburg, 5dms. £102
Tar
Launceston, 2 brls £5
Hamburg, 400 163
Stettin, 100 45
E. London, 100 dms. 13
Brisbane, 100 20
Mauritius, 20 4
Delagoa Bay, 55 11
" 116 pks 8
Helsingfors, 8 ocks 6:1
Alexandria, 5 6

Copperas—
Adelaide, 5 t. 9 c. £10

Copper Sulphate—
Rotterdam, 5 t. 3 c. £122
Paris, 35 5 900
Boulogne, 15 6 335
Newcastle, 1 3 24
Hamburg, 1 2 24

Cream of Tartar—
Wellington, 10 c. £38
Brisbane, 1 t. 6 21
Cairns, 5 19
Melbourne, 3 5 255
Napier, 10 39
Dunedin, 5 19
Fremantle, 6 20

Disinfectants—
Auckland, 4 pks. £16
Otago, 1 cs. 13 53
Pt. Elizabeth, 121 49
Hamburg, 40 dms 15
Calcutta, 530 40
Sydney, 6 19
Melbourne, 16 77

Glycerine—
New York, 12 t. 7 c. £390

Manure—
Boston, 1 t. £15
Cape Town, 285 11 c. 1,322
Colombo, 28 200
Dunkirk, 120 657
New York, 8 21
E. London, 5 23
Sydney, 16 140
Fremantle, 4 35
Melbourne, 4 30
Durban, 70 4 325
Channel Is., 2 11

Nitric Acid—
Channel Is., 14 crbys. £28

Oxalic Acid—
Syra, 1 t. 2 c £30

Pearl Ash—
Brisbane 13 c. £15

Phosphates—
Genoa, 30 t. 1 c. £182
Leghorn, 30 2 182

Phosphoric Acid—
Durban, 33 cks. £118
Trinidad, 2 t. 3 c. 33

Phosphorus—
Brisbane, 2 cs. £20

Potash—
Wellington, 1 t. 8 c. £46

Potassium Bicarbonate—
Philadelphia, 2 t. 14 c. £70

Potassium Carbonate—
E London 5 c. £5

Potassium Chlorate—
Wellington. 2 kgs. £5

Potassium Cyanide—
Charters Towers, 3 t £336
Normanton, 2 229
Rockhampton, 1 112
Durban, 8 89
Melbourne, 1 6 c. 145
Sydney, 6 14 738
Auckland, 4 455
Melbourne, 7 10 cs. 1,204
Delagoa Bay, 30 3,072
Fremantle 5 10 10 710

Potassium Prussiate—
Stockholm, 2 cks. £8
Danzig. 32 700
Yokohama, 10 c. 41

Saltpetre—
M. Video, 21 15 c. £55
Napier, 7 6
Christchurch, 12 13
Wellington 1 10 31
Gibraltar, 7 10 147

Soda—
Rotterdam, 5 t. 9 c. £ 0
B. Ayres, 2 13
Melbourne, 6 13

Soda Ash—
Auckland, 22 t. 10 c. £65

Sodium Bicarbonate—
Fremantle, 11 c. £7
Dunedin, 2 t. 14
Patea, 1 5
Barbadoes, 1 8
Perth, 2 1 11

Sodium Silicate—
Auckland, 11 t. 12 c. £75

Sodium Sulphate—
Ghent, 10 t. £150

Sodium Tartrate—
Toronto, 17 c. £51

Sulphur—
Durban. 11 t. 16 c. £17
Newcastle, 1 8

Sulphuric Acid—
Madras, 9 c. £10

Superphosphates—
Christchurch, 150 t. £457
Jersey, 65 172
Adelaide, 500 1,512

Tannic Acid—
Cape Town, 8 c. £20

Tartaric Acid—
Cape Town, 2 c. £11
Yokohama, 2 t. 2 233
Fremantle. 3 18
Wellington, 5 27

LIVERPOOL

Week ending October 11th.

Ammonium Carbonate—
Stockholm, 4 t. 8 c £51
Genoa, 2 11 67
Venice, 17 22
Algoa Bay, 3 5
Konigsberg, 15 20
Odessa, 4 5 115
Barcelona, 1 3 q. 20
Hamburg, 2 57

Ammonium Muriate—
Genoa, 10 c. £11
Stockholm, 3 t. 9 66

Ammonium Sulphate—
Leghorn, 0 t. £115
Venice, 50 5 c. 233
Valencia, 120 13 1,468
Las Palmas, 8 98
Bordeaux, 29 363
Genoa, 49 612

Barium Chlorate—
New York, 10 c. £25

Bleaching Powder—
Amsterdam. 167 cks.
Antwerp, 30
Baltimore, 127
B. Ayres, 6
Calcutta, 15 cs
Cornwall. 27
Genoa, 27
Gothenburg, 117
Leghorn, 17 dms.
Lisbon, 229
Mundil, 62
Naples, 48
Oporto, 25
Philadelphia, 54
Pt. Natal, 40
Rotterdam, 41
Rouen, 24
Santander. 24
Seville, 126
Venezia, 110

Boracic Acid—
Antwerp. 4 c. £5
Vancouver, 11 1 q. 16

Borax—
Santiago de Cuba, 10 c. 2 q. £10
Hamilton, 3 t. 15 52
Toronto, 5 160
Mainz, 5 3 3 86
Cienfuegos, 1 5 20
Hamburg. 4 66
Antwerp, 1 17
Hankow, 2 2 57
Hiogo. 3 6 1 44
Cienfuegos, 2 cks. 12
Auckland. 3 48
Melbourne, 2 30
Montreal, 13 11 2 318
Demerara, 3 3 5

Borax Glaze—
E. London, 2 t 6 c. £100

Calcium Carbide—
Pt. Elizabeth, 1 t £34

Calcium Chloride—
Antwerp, 5 t. 1 c £10
Boston, 13 6 23
Melbourne, 5 8 10

Carbonic Acid Gas—
Bolivia, 8 c. £24

Caustic Potash—
B Ayres, 8 c. 2 q. £5
Chicago, 4 0

Caustic Soda—
Alexandria, 155 dms.
Alicante, 40
Barcelona, 320 30 cks
Bombay, 51
Boston, 20 bxs.
Brisbane, 78
Amsterdam 45
Antwerp, 17
B. Ayres, 50
Calcutta, 20
Ceara. 70
Catania, 45
Chicago, 20
Constantinople, 10
Dunedin, 61
Fiume. 30
Fremantle, 40
Galatz, 30
Gefle, 32 26 brls.
Genoa, 337
Hamburg, 65
Havana, 83
Hiogo, 50
Kingston, Ja. 30
Melbourne, 40
Naples, 50
M. Video. 25
Montreal, 340
Oporto, 15
Pernambuco, 53
Piræus, 249
Pt Natal, 10
Quebec 50
Rotterdam, 63
Rouen 105
St. Stephens, N.B, 50
Savanilla, 30
Seville, 1,058 20
Stockholm, 30
Sydney, N.S.W., 15
Syra, 5
Tampico, 12
Tarragona, 10 20
Tours, 8
Trieste, 64
Vancouver, B.C 31
Venice, 15
Wellington, 10
Zacatecas, 80

Chemicals *(otherwise undescribed)*
Piræus 5 t 2 q. £25
Stamboul, 5 3 c. 2 25
Lisbon, 10 10 1 52
M. Video, 21 2 2 59
Vancouver, 2 5 11
Victoria, 1 3 5
B. Ayres, 11 2 9
Trieste, 5 25
New York, 24 1 605
Natal, 2 33
Santiago de Cuba, 3 2 3
Gijon, 2 17 3 45
Genoa, 4 9 3 72
Barcelona, 3 11 56
Ancona, 1 1 1 17
Odessa, 1 10 2 45
Boston 1 15 55
" 193
Varna. 4 2 1 8
Sydney. 1 17
Geelong, 2 34
Wellington, 1 17
Singapore 3 300
Philadelphia, 14 10 2 367
Madras, 24 2,200

China Clay—
Calcutta. 20 cks.
Lisbon, 40
Manila 20
Montreal 616
New York, 220

Chromium Acetate—
Naples, 2 cks. £31

Chromium Trioxide—
Singapore. 2 c. £6

Citric Acid—
Algoa Bay, 1 cs. £5

Coal Products—
Aniline Colour
New York, 13 cks.
Shanghai, 25 cs.
Valleyfield, P.Q., 5 kgs.
Aniline Oil
Rouen. 3 dms.
Valleyfield, P.Q., 4

Carbolacene
Antwerp, 7 c. 1 q. £11
Carbolic Acid
Antwerp, 15 t. £326
Oporto, 15 c. 3 q. 53
Yokohama, 9 6 453
Vancouver, 3 2 10
Rosario, 5 24
Lagos, 2 6
Hamburg, 9 3 33
Milan, 1 1 1 72
Florence, 10 3 35
Rotterdam, 5 1 2 94
Fiume, 10 cks 31
N York, 20 3 11 1 410
Alexandria, 7 3 28
Pitch
Aviles, 457 t. 11 c.
Tar
Galatz, 60 brls
Ibrail, 51
Manila, 10 cks. 20 dms.
Odessa, 10
Philadelphia, 100
Sekondi, 2
Sulina, 40
Vancouver, 20

Copper Hydroxide—
Calcutta, 5 c. 1 q. £35

Copper Sulphate—
Catania, 91 t. 7 c 2 q. £222
Gothenburg. 5 10 1 128
Konigsberg, 17 21
Dantzig, 5 125
Galatz, 2 9 3 55
Palermo, 4 7 96
Naples, 2 7 2 51
M Video, 6 2 1 131
Bombay. 3 4

Disinfectants—
Bombay, 1 t. 5 c. £9
Shanghai, 3 cs. 12

Glauber Salts—
Bombay, 1 t. 8 c. £9

Glycerine—
Hiogo, 5 t. £600
Rotterdam, 24 19 c. 2 q. 950
New York, 16 10 700

Guano
Barcelona, 103 t. 6 c 4825
Malaga, 39 16 290

Gypsum—
Rio de Janeiro. 1 t 12 c. 1 q. £5

Magnesia—
B. Ayres, 1 cs.
Guayaquil, 5
Leghorn. 2 tcs. 11
Philadelphia, 10
Santander, 10
Vera Cruz, 7

Magnesium Chloride
Rangoon, 3 t. 11 c. £17

Manure—
Gd. Canary, 20 t. £238

Mercuric Chloride—
Lisbon, 2 cs. £30

Paint—
Bassam, 50 kgs.
Belize, 83 13 cks.
Beyrout, 30
Bombay. 40 dms.
Brest, 14 tins
Cadiz, 30
Caiffa. 6 2
Calcutta. 77 140
Cartagena, N.G. 41
Ceara, { 7 brls. 4 / 6 cs.
Constantinople, 3 bxs. 1 28
Genoa. 60
Gibraltar, 143 kgs. 18
Gibara, 1 ck.
Hamburg. 34 2 20 pks.
Havana, 16
Ibrail, 6
Iquitos. 6
Jeremie, 4
Kingston, Ja., 3
Lagos, 1 cs.
Lisbon, 1 10 dms.
M. Video, 10
Manaos, 19 cks.
Manila. 16
Matanzas, 2
Mossel Bay, 4
Nassau, 110 4
New York. 1
Panama, 1
Para, 4
Pernambuco, 10 brls.
Rio de Janeiro, 24 250
Santander, 4 kgs. 25
St. John's, Nfld, 215 17 pks.

Santiogo de C., 1
San Juan, 7
Sekondi, 11
Sierra Leone, 212
Valparaiso, { 441 109 cs. / 25 brls.
York Island, 96

Painters Colours—
Alexandria, 25 cks.
Bremen, 500 bgs. 82
B. Ayres. 92 crts. 5 cs
Cleveland, 39
Cochabamba, 30
Constantinople, 392 kgs. 5 1 brl
Hong Kong, 20 tcs.
Matanzas, 3
Rotterdam, 50 bgs.
Santiago de C., 1
Valparaiso, 112 kgs.
Yokohama, 480

Paraffin Wax—
Boston, 2 cs
Brindisi, 6 bgs.
Genoa, 75
Leghorn, 75
Marseilles, 10
Naples, 100
Paris 10
Patras, 50 55
Piræus, 10
Trieste, 10
Venice, 20

Potassium Carbonate—
Baltimore, 13 t. 18 c. £236
Chicago, 4 14 104
New York, 10 10 189

Potassium Chlorate—
Hiogo, 30 t. £916
Naples, 1 10 c. 45
San Francisco, 1 10 40
Sydney. 5 150
Vancouver, 2 5
Vera Cruz, 1 10 46

Potassium Cyanide—
Axim, 3 c. £5
Cuidad Bolivar, 8 47

Potassium Prussiate—
Genoa, 12 cks. £205
Vera Cruz, 10 c. 30

Potassium Stannate—
Bombay, 1 t. 19 c. 2 q. £115

Salammoniac—
Fiume, 1 t. 10 c. 2 q. £51
Gijon, 7 1 12
Mersyne, 6 9
Patras, 11 17
Piræus, 12 21
Syra, 15 24
Vera Cruz, 6 10

Salt—
Antwerp, 205 t.
Baltimore, 195
Bassam, 75 10 c.
Beyrout, 11 16
Boston, 120
Calcutta, 2,117
Chicago, 200
Christiania, 100
Conakry, 95
Ghent, 40
Gd. Bassa, 28
Half Assinee, 10
Halifax, 391 16
Hamburg, 50
Isles de Los, 50 4
Kingston, Jam., 25
Landana, 15
Loanda, 8 10
Little Batanga, 98 4
Melbourne, 75
M. Video, 9 16
Montreal, 488 13
N. Orleans, 500
New York, 50
Noqui, 40 12
Para, 32 15
Philadelphia, 20
Pt. Natal, 136
Porto Alegre, 88 8
Quebec, 258
Rio de Janeiro, 9 11
Rio Del Rey, 28
Rio Grande do Sul, 87 10
Rotterdam, 332
Rouen, 15
St Petersburg, 250
South St. Paulo, 60
Sapeli 15 11
Sierra Leone, 100
Stanley Pool, 10
Tumba, 10
Victoria, B. C., 150

Salt Cake—
Baltimore, 30 t. 15 c. £57
Leghorn, 30 47
Lisbon, 30 49
Philadelphia, 50 14 94
Wellington, 3 2 7

Saltpetre—
Almeria, 10 c. £11
Para, 1 t. 5 28
Syra, 3 9 1 q. 71

Satinite—
Gothenburg, 28 t. £82

Sheep Dip—
Antwerp, 14 c. £5
B. Ayres, 8 t. 18 2 q. 250
Calcutta, 60 dms. 30

Soap—
Algoa Bay, 1,200 bxs.
Alexandria, 50 30 cs.
Amsterdam, 245
Batavia, 1,900
Barbadoes, 300
Benin, 200
Bombay, 56
Boston, 30 pks.
Buguma, 224
Cairo, 60 6
Calcutta, 281
Cape Lopez, 20
Cartagena, N.G., 1
Colombo, 75
Conakry, 200
Constantinople, 200
Curacao, 311
Durban, 256
Ferrol, 7 10
Genoa. 130
Gibraltar, 120 40
Gd. Canary, 570 10
Guadeloupe 550 bdls.
Hong Kong, 1,377
Karachi, 12
Kingston, Ja. 1,400
Las Palmas, 448
Leghorn, 6
Madras, 1 ck.
Malta, 120
Mannheim, 926
Matadi, 75
Melilla, 150
Oporto, 1
Patras, 15 pks.
Penang, 913
Pernambuco, 1
Piræus, 13 10
Pt. Beira, 50
Pt. Elizabeth, 100
Pt. Natal, 20
Pt. Said, 20 25
Rawal Pindi, 10
Rangoon, 1,452
Rio de Janeiro, 4
Rio Munez, 50
Rotterdam. 420
St. John's, N'fd. 145
St. Lucia, 90
Salonica, 50
Stamboul, 20
Sapeli, 960
Shanghai, 3,100
Singapore, 2,336
Smyrna. 20
Stockholm, 301
St. Thomas, 375
Surinam, 18 dms.
Tainanga, 60
Teneriffe, 327
Toronto, 3,000
Trinidad, 1,750
Valparaiso, 4
Venice, 5
Warri, 900

Soda Ash—
Acajutla, 8 cks.
Antwerp, 50 bgs.
Baltimore, 520
Boston, 80 100 tcs. 36
Bombay 75 kgs. 14
Brisbane, 82
B. Ayres, 154
Calcutta, 100 60
Corfu, 25 brls.
Dunedin, 20
Genoa, 310 bgs.
Hamburg, 69
Hiogo, 265
Hobson's Bay, 45
Kingston, Jam., 19
Leghorn, 100
Lyttelton, 20
Maranham, 10 kgs. 20
Piræus, 15 65
Rio de Janeiro, 25 tcs.
" 25 brls.
Rotterdam, 768 bgs.
Samarang, 50
Smyrna, 150
Sourabaya, 50
Sydney, 511
Syra, 100
Zante, 80
Venice, 80 tcs
Waterloo, Ont., 25
Wallaceburg, Ont., 125
Wellington, 149
Windsor Mills, 330
Yokohama, 96 kgs.

Soda Crystals—
Alexandria, 34 brls.
Gibraltar, 30
Malta, 70

Sodium Acetate—
Barcelona, 17 cks.

Sodium Arseniate—
Boston, 10 cks.

Sodium Bicarbonate—
Ancona, 55 kgs.
Barcelona, 35 6 cks.
Bari, 60
Batoum, 40
Bombay, 125 22
Brockville, 200
B. Ayres, 10
Calcutta, 760
Cape Town, { 8 bgs. / 25 kgs.
Cartagena, N.G., 100
Colombo, 4
Constantinople, 50
Dunedin, 150
Fremantle, 10 cs.
Hamilton, 100
Hiogo, 600
Honolulu, 50
Johannesburg, 20
Kobe, 400
London, 190
Madras, 30
Marseilles, 89 3
Melbourne, 430 18
M. Video, 15
Montreal, { 50 bgs. 10 / 250 pks.
Odessa, 210 kgs. 220 dms.
Rangoon, 250
Rouen, 10 cks.
Seville, 90 5
Sydney, 572
Toronto, 35
Vancouver, 75
Vera Cruz, 23
Victoria, 25
Wellington, 325
Yokohama, 150

Sodium Carbonate—
Pt. Elizabeth, 2 cs.

Sodium Chlorate—
Hamburg, 8 cks.

Sodium Hyposulphite—
Vancouver, B.C., 15 kgs.
Victoria, " 10

Sodium Prussiate—
Philadelphia, 25 cks.

Sodium Silicate—
Bombay, 7 brls.
Payta, 12

Spent Oxide—
Nantes, 102 t. £102

Starch—
Ferrol, 4 cs.

Sulphur—
Darjeeling, 5 t. 10 c. £34
Montreal, 50 2 21 5
Norrkoping, 50 238
Para, 5 1
Salaverry, 15 5

Sulphuric Acid—
Natal, 1 c. £13
Para, 7 3
Rio de Janeiro, 1 t. 16 12
Sierra Leone, 4 3

Superphosphates—
Barcelona, 200 t. £555

Varnish—
Alexandria, 2 cs.
Cape Town, 7
Corfu, 2
Genoa, 5 pks.
Gibraltar, 2 cks.
Hamburg, 1 dm.
Naples, 5
Santander, 1
Seville, 1 2

White Lead—
Algoa Bay, 16 kgs.
Pt. Natal, 200
St. John's, N'fd., 26
Sierra Leone, 30

Zinc Chloride—
Bombay, 3 t. 6 c. 2 q. £37

Zinc Chloride (Solid)—
Bombay, 4 t. 10 c.

MANCHESTER

Week ending October 11th.

Arsenic—
B. Ayres, 5 cks.

Bones—
Beauvis, 102 bgs.
Ribecourt, 161

Caustic Soda—
Melbourne, 15 cs.

Coal Products—
Aniline Colours
Germany, 7 kgs. 1 cs.
Aniline Oil
Belgium, 3 dms.
Germany, 10
Holland. 5 tins
Carbolic Acid
Germany, 50 cks.
Naphthylamine
Germany, 65 cks.
Pitch
Belgium, 291 t. 7 c. 2 q.
Tar
Treport, 2 brls.

Dyestuffs—
Extract
Belgium, 2 cks
France, 10

Farina—
Holland, 100 sks.

Gamma Acid—
Germany, 7 cks.

Glue—
Germany, 6 cs.
Hamburg, 5 cks.
Rotterdam, 34

Glycerine—
Germany, 20 crbys.

Oxide of Iron—
B. Ayres, 80 cks.

Paraffin Wax—
Hamburg, 22 cs.

Salt—
Hamburg. 170 t.

Soap—
Germany 2 pns.

Sodium Arseniate—
Holland, 1 ck.

Sodium Naphthionate—
Germany, 19 cks.
Switzerland, 22

Tallow—
Holland, 2 cks.

Tin Crystals—
France, 2 cks.

GLASGOW.

Week ending October 12

Ammonium Sulphate—
Colombo, 9 t. 10 c.
Mauritius, 526 8
Philadelphia, 25 7 3 q.

Anti Scale-solution—
San akan, £70

Bleaching Powder—
Calcutta, 30 t. 3 c.
Rio de Janeiro, 3 12 3 q.

Borax—
New York, £35
Peterborough, 83
Tokio, 65

Chemicals (*otherwise undescr*
Calcutta, £250

Coal Products—
Alizarine Colours
Lisbon, £35
Carbolic Acid
Rotterdam, £405
Creosote Oil
B. Ayres, £97
Christiania, 40
Pitch
Canada, £241
Christiania, 35
Danzig, 102 t.
Havre, 400
Tar
Algoa Bay, £21 17s
Calcutta, 6
Canada, 55
Stockholm, 668
St. Petersburg, 849 10
Tar Oil
Paris, £20

Colours—
Amsterdam, £4 10s.
Dextrine—
U.S.A., £228
Dyestuffs—
Argols
Canada, £19
Extract
Canada, £287 14s.
Portugal, 25 14
Fustic Extract
Canada, £4
Turmeric
Canada, £ 8 10s.
Farina—
Rio de Janeiro, £102
Farola—
Amsterdam, 1 crte.
Fusel Oil—
Hamburg, £110
Gelatine—
New York, 3,750 lbs.
Glauber Salts—
Lisbon, £11
Glucose—
Christiania, 9 t. 4 c. 1 q.
Gutta Percha—
Amsterdam, £23
Huelva, 180
Rotterdam, 9 10s.
Iodine—
Rotterdam, £800
Lead Nitrate—
Paris, £200
Linseed Oil—
Colombo, 1 t. 13 c. 2 q.
Shanghai, 16
Singapore, 4 15
Havana, 4 12
Litharge—
Philadelphia, £59
Stockholm, 40
Logwood—
Canada, £89
Magnesium Sulphate—
Canada, £38 13s.
Montreal, 38 13
Paris, 32 17
Manganese—
Antwerp, £225
Manganese (Recovered)—
Rouen, £65
Manure—
Falmouth, 6 t.
Paint—
Antwerp, £112
Colombo, 106
Grenada, 31
Havana, 34 10s.
Hong Kong, 19
Natal, 298
Singapore, 275
Trinidad, 93 10
Painters' Colours—
Pt. of Spain, £42
Rotterdam, 3
Shanghai, 207
U.S.A., 121
Paraffin Wax—
Antwerp, £55
Bordeaux, 91
Christiania, 6
Danzig, 3 t.
Pretoria, 388
Rio de Janeiro, 160
Rouen, 27
Potassium Bichromate—
Christiania, £22
Lisbon, 101
Madras, 130
Montreal, 168
Paris, 291
Rotterdam, 114
Rouen, 73
U.S.A., 364
Potassium Muriate—
Colombo, £90
Red Lead—
Amsterdam, £40
Rotterdam, 100
Sheep Dip—
B. Ayres, £91
Soap—
Colombo, 5 t. 1 c. 2 q.
Singapore, 1 6
Soap Lyes—
New York, 14 t. 18 c.
Sodium Bichromate—
Paris, 5 t. 1 c.
Rouen, 20 17
U.S.A., 1 12
Starch—
Rio de Janeiro, £157
Rotterdam, 55
Yarnish—
Colombo, £20
White Lead—
Algoa Bay, £23
Huelva, 27 14s.
M. Video, 30

HULL.

Week ending October 7th.

Alkali—
Abo, 50 cks.
Raumo, 75
Uleaborg, 3
Venice, 37
Ammonium Alkali—
Drontheim, 100 bgs.
Ammonium Sulphate—
Venice, 203 bgs.
Barytes—
Rouen, qty.
Basic Slag—
Stettin, 3,050 bgs.
Bleaching Powder—
Danzig, 20 cks.
Riga, 50
Borax—
Wasa, 2 cks.
Caustic Soda—
Danzig, 35 dms.
Harlingen, 17
Riga, 100
Chemicals (*otherwise undescribed*)
Abo, 2 cs.
Amsterdam, 27 cks. 30 btls.
Bergen, 4
Bombay, 405 10
Christiania, { 9 4 } 369 slbs. 10 pks.
Copenhagen, 20
Danzig, 30
Fiume, 30 crbys.
Gothenburg, 53
Hamburg, 46 123
Kurrachee, 150 57 pks.
Riga, 16 51
Rotterdam, 88
Rouen, 20
St. Petersburg, 1 24
Wasa, 83 1
Coal Products—
Creosote
Stockholm, 15 cks.
Pitch
Dunkirk, 228 t.
Wasa, 50 cks.
Tar
Antwerp, 4 cks. 3 dms.
Christiania, 15
Dunkirk, 22
Hamburg, 10
Wasa, 1
Cottonseed Oil—
Amsterdam, 15 t.
Bordeaux, 5
Copenhagen, 5
Danzig, 2 11 c.
Ghent, 10
Hamburg, 9 1
Rotterdam, 1 7
Linseed Oil—
Antwerp, 4 t. 16 c.
Bombay, 5 14
Christiania, 3 18
Drontheim, 5 19
Hamburg, 3 10
Stavanger, 18
Manure—
Hamburg, 1,002 bgs.
Jersey, 10 t.
Venice, 530
Painters' Colours—
Amsterdam, { 30 cks 10 pks. 8 dms.
Antwerp, { 845 250 cs. 27 141 pks. 200
Bombay, { 3 138 134 dms.
Bergen, 1 20
Christiania, { 1 2 52 pks.
Copenhagen, 15 2 29 dms.
Danzig, 46
Gothenburg, 60
Ghent, 36
Hamburg, 3 3
Harlingen, 16 pks.
Kurrachee, 2
New York, 116
Rotterdam, 13 1
Stettin, 9
Stockholm, 2 2
Trieste, 19
Venice, 25
Wasa, 2
Rosin—
Kurrachee, 20 cks.
Salt—
Abo, 50 bgs.
Soap—
Amsterdam, 228 cs.
Hamburg, 3
Kurrachee, 1
Starch—
Copenhagen, 1 blc.
Stockholm, 2 cs.
Tallow—
Amsterdam, 18 cks.
Hamburg, 10
Yarnish—
Abo, 1 ck.
Amsterdam, 12 1 cs.
Antwerp, 2
Bari, 9
Bombay, 6
Ghent, 1
Gothenburg, 1
Kurrachee, 6
Stockholm, 7
Stettin, 7

TYNE.

Week ending October 7th.

Alkali—
Amsterdam, 3 t. 15 c. 1 q.
Riga, 112 16
Antimony—
Hamburg, 10 t.
Rotterdam, 5
Asbestos—
Aarhuus, 5 c.
Barium Binoxide—
Hamburg, 5 t. 8 c. 3 q.
Rotterdam, 13 2
Barium Carbonate—
Rouen, 21 t. 1 c.
Bleaching Powder—
Amsterdam, 8 t. 14 c. 3 q.
Bergen, 5 10 2
Copenhagen, 10 10 1
Gothenburg, 10 2
Nakskov, 1 13 3
Riga, 30 2 3
Rotterdam, 10 11 2
Caustic Soda—
Aarhuus, 1 t. 9 c.
Antwerp, 15 13 1 q.
Nakskov, 1 9
Riga, 10 10
Tampico, 92 8 1
Chemicals (*otherwise undescribed*)
Montreal, 14 t. 1 c. 2 q.
China Clay—
Copenhagen, 15 t. 6 c. 2 q.
Coal Products—
Anthracene
Rotterdam, 64 t. 6 c.
Carbolic Acid
Aarhuus, 6 c. 2 q.
Naphthaline
Riga, 33 t. 7 c. 2 q.
Pitch
Genoa, 1 c.
Colours—
Copenhagen, 3 c. 3 q.
Lamp Black—
Montreal, 2 t. 2 c.
Linseed Oil—
Genoa, 8 c. 2 q.
Litharge—
Gothenburg, 1 t. 6 c. 3 q.
Hamburg, 10 1
Montreal, 2 13 2
Riga 1 8
Magnesia—
Antwerp, 14 c.
Hamburg, 2 t. 12 2 q.
Orange Mineral—
Montreal, 24 t. 0 c. 2 q.
Paint—
Antwerp, 10 c.
Copenhagen, 13
Gothenburg, 11
Rotterdam, 5
Red Lead—
Copenhagen, 9 t. 17 c. 3 q.
Gothenburg, 3 19 3
Hamburg, 36 1 2
Montreal, 2 4 2
Riga, 32 14 2
Soap—
Antwerp, 12 lbs.
Genoa, 1 c.
Soap Lyes—
Hamburg, 19 dms.
Soda—
Amsterdam, 10 t.
Antwerp, 1 q
Genoa. 2
Nakskov, 2 8 c. 2
Soda Ash—
Gothenburg, 91 t. 11 c. 1 q.
Rotterdam 3 19 1
Soda Crystals—
Rotterdam, 9 t. 19 c. 1 q.
Sodium Silicate—
Tampico, 3 t. 3 c. 3 q.
Spirits of Tar—
Hamburg, 18 c.
Starch—
Copenhagen, 1 c.
Sulphur—
Riga, 60 t. 1 q.
Superphosphates—
Lisbon, 1,210 t.
Tallow—
Genoa, 2 q.
Rotterdam, 7 t. 7 c. 3
Turpentine—
Genoa, 1 c. 2 q.
Yarnish—
Genoa, 1 q.
Yermilionette—
Genoa, 4 lbs.
White Lead—
Copenhagen, 1 t. 19 c 3 q.
Montreal, 45 2 1

GOOLE.

Week ending October 4th.

Chemicals (*otherwise undescribed*)
Antwerp, 5 crbys. 4 dms.
Boulogne, 55 cks.
Hamburg, { 31 5 21 crbys.
Rotterdam, 5 10
Coal Products (*otherwise undes.*)—
Amsterdam, 123 cks.
Antwerp, 3 pks. 1 dm.
Boulogne, 198 cks.
Dunkirk, 1 cs.
Ghent, 1
Hamburg, 17
Rotterdam, 60
Coal Products—
Pitch
Antwerp, 1,078 t.
Dyestuffs (*otherwise undescribed*
Ghent, 2 cks.
Hamburg, 1
Rotterdam, 14
Manure—
Antwerp, 600 bgs.
Painters' Colours—
Boulogne, 5 cks. 10 cs.
Ghent, 11
Rotterdam, 2 5

GRIMSBY.

Week ending October 7th.

Alkali—
Port au Prince, 136 dms.
Caoutchouc—
Gothenburg, 1 cs.
Chemicals (*otherwise undescribed*)
Hamburg, 5 kgs.
Coal Products (*otherwise undes.*)—
Dieppe, 94 cks. 5 pks.
Coal Products—
Pitch
Malmo, 20 brls.
Painters' Colours—
Antwerp, 4 pks.
Hamburg, 17 brls. 42
Rotterdam, 1 kg.
Sulphur—
Malmo, 377 bgs.

PRICES CURRENT.

WEDNESDAY, Oct. 18, 1899

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	0	11½
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	5	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	17	6
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	23	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	35/- & 33/-		
,, Nitrate per ton	33	0	0
,, Phosphate per lb.	0	0	4
,, Sulphate (grey) London per ton	11	2	6
,, ,, (grey) Hull ,,	11	0	0
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/- to 60/-		
Bleaching Powder, 35 % nett ,,	5	10	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	12	15	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 2:/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 3 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	9
,, 50/90 ,,	0	0	10¾
Carbolic Acid (crude 60°) ,,	0	2	2
,, (crystallised 40°) per lb.	0	0	7½
,, (liquid 95/97%) per gallon	0	1	1
Creosote (ordinary) ,,	0	0	3¼
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	12	6
Solvent Naphtha, 90% at 160° per gallon	0	1	3
Copper per ton	75	10	0
,, Sulphate ,,	25	10	0
,, Oxide (copper scales) ,,	68	0	0
Glycerine (crude) 80% ,,	32	10	0
,, (distilled S.G. 1260°) ,,	50	0	0
Iodine nett, per oz.	0	0	7 ½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	17	10	0
,, Litharge Fleke (ex ship) ,,	20	0	0
,, Acetate (white ,,) ,,	23	0	0
,, ,, (brown ,,) ,,	18	10	0
,, Carbonate (white lead) pure ,,	23	0	0
,, Nitrate ,,	22	0	0
Lime, Acetate (brown) (ex ship) per ton	5	7	6
,, ,, (grey) (ex ship) ,,	8	5	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	10	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	19	10	0
Linseed ,,	23	10	0
Stearine ,,	27	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	17	0	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % per ton	23	15	0
,, ,, 75/80 % ,,	19	15	0
,, Potash Hydrate Liquid 50 % ,,	13	0	0
,, Nitrate (refined) ,,	20	10	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	7⅞
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,, ,,	8	15	0
Silver (metal) per oz	0	2	2 11/16
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,,	4	2	6
,, ,, (Soda Crystals) ,, ,,	2	15	0
,, Acetate (ex-ship) ,,	13	15	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	10	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	9	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	8	15	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	7	15	0
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	7½
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	5	0
,, Prussiate per lb.	0	0	5⅝
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	6	0
,, ,, (Glauber's Salts) ,,	1	12	6
,, Sulphide (crystals) ,,	6	5	0
,, Sulphite ,,	5	2	6
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4¼
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	7	5	0
,, (Roll Brimstone) ,,	6	2	6
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	28	0	0
Tin Crystals per lb.	0	0	10½
,, English Ingots per ton	149	0	0
Zinc (Spelter) ,,	22	5	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	15	0

THE

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AND

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cations for the Editor, if intended for insertion in the k's issue, should reach the office not later than **Tuesday**

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ments intended for insertion in the current week's issue the office by **Thursday morning** at the latest.

CURRENT TOPICS.

THE ACTIEN GESELLSCHAFT FÜR TREBERTROCKNUNG IN CASSEL.

A pamphlet has just been published by six firms who appear to stand in immediate competition with the above concern, traversing much of the ground occupied by the balance sheet of the company (*C.T.J.*, xxv., 264). Owing to the mass of matter contained therein we are unable to offer any remarks upon it in this week's issue, but as a general meeting of the shareholders of the Actien Gesellschaft für Trebertrocknung in Cassel has been convened, for the purpose of refuting some of the arguments employed against the company, we hope to be able to give a full report of the meeting in due course.

The report and accounts we have already published show that the Cassel Co. has given every facility for a full insight into its affairs; in point of fact, there are but few British companies which afford as ample an insight into their position as the Cassel Co. has done, and this *prima facie* speaks well for the *bona fide* nature of the administration.

The details of the Company's manufacturing business are too controversial for us to enter into without far more information than we possess, but as they doubtless will be enquired into and explained at the November meeting of shareholders of the Cassel Co., we hope that the report of that meeting will enable us to give a summary of the whole situation. We would advise all interested in the question to suspend judgment in the meantime.

A NITRATE ANOMALY.

We know that there is room for improvement in regard to the affairs of nitrate of soda companies, but the doings of the Primitiva Nitrate Co. puzzle us more than a little.

At one time, this company was one of the most prosperous of the nitrate ventures, and was largely instrumental in inducing the public to invest their money to the extent they did in the nitrate refining industry. It is pitiful to call to mind the hard times which have fallen to the lot of this company; but, however great our regret may be, it can hardly account for the strange delay which has taken place in making known the general standing of the company.

At least one shareholder is in ignorance on this subject. Last August a general meeting was held, and since then nothing appears to have been heard by those shareholders who were not at the meeting. This state of affairs may have arisen from a personal oversight, but just when shareholders are prone to criticise and find fault, it behoves those who have the welfare of nitrate companies at heart to exercise every caution in order to prevent shareholders from picking holes.

Let us hope that our interpretation of this anomaly is the correct one, in which case the grievance will be of a limited nature.

EXPERTS AS ADVOCATES.

There is a growing tendency for chemical experts to lend themselves to other than their legitimate uses. By saying legitimate, we do not mean to insinuate that the uses in themselves are wrong, but rather to convey the statement that they are outside the duties of the expert, as such.

An expert is one who gives an opinion which entails the exercise of special training and experience in its formation. It often happens now-a-days, however, that he goes further than that, and indicates how his expert evidence may be turned to advantage by those who have engaged him. An expert has, or should have, no side, party, or client. He gives an expert opinion upon certain points concerning which he has had exceptional experience.

There is no harm in his being an advocate as well as an expert, but he should be declared such. There is no difference between an expert and a sworn appraiser according to Webster, but a distinction does exist in the minds of the general public between an expert in this dual sense and an advocate.

A case in point occurs in the report of Professors Crookes and Dewar on the London water supply. After the usual chemical and bacteriological figures, the report adds:—"Taken as a whole, the quality of the London water supply has rarely, if ever, been so good as during the course of last month, and for any person, professing to be conversant with the question of water supply, to talk at the present day of the drinking water of London as 'a limited supply of diluted sewage, in the place of fresh water,' is to indulge in a misrepresentation of facts which cannot be too strongly condemned."

Now are these gentlemen reporting as experts and sworn appraisers, or as experts and advocates? If the former, they exceed their duty and the report should end at the word "month." If the latter, it should be clearly stated, in order that we may learn for whom they hold a brief, since their report is a purely *ex parte* statement and must be judged accordingly. This is a light in which chemical experts will do well to examine themselves more closely when they are called upon in the future to act as consulting chemists or experts.

POLLUTION OF THE RIVER MERSEY.

WITHINGTON DISTRICT COUNCIL SUMMONED.

At the County Police Court, on Tuesday, the case of the Mersey and Irwell Joint Rivers Committee *v.* The Withington Urban District Council came on for hearing before Mr J. M. Yates, Q C, and other magistrates. Mr. J. H. Wilson appeared on behalf of the Joint Committee, and Mr H. T. Crofton (Messrs. Crofton, Craven and Worthington) represented the District Council.

Mr. Wilson said he appeared on behalf of the Mersey and Irwell Joint Committee in support of summonses against the Withington District Council, who were charged with causing, and knowingly permitting, liquid sewage matter to flow into Chorlton Brook, and thence into the river Mersey. Informations were laid for offences committed on the 5th June and the 10th July. Since coming to Manchester that morning he had, however, consulted with Mr. Crofton, and did not think it would be necessary to detain the Bench long over the case. The Withington sewage farm was situated practically at the junction of the Chorlton Brook with the river Mersey. It had an area of 56 acres, and was supposed to treat the sewage from a population of approximately 31,000 people, and carried away 2½ million gallons per day of 24 hours. In the opinion of Mr. Tatton, chief inspector to the Joint Rivers Committee, the farm was inadequate to dispose of such a large volume of sewage. He (Mr. Wilson) understood that the defendants were prepared to admit that that was so. In their sewage beds they had grown corn and generally cropped the farm, instead of growing rye-grass, which was a greater absorbent of such matter—greater than other cereals. This being so, and the subject having been brought before the District Council, he understood they were prepared to take further steps in the direction desired. From time to time during the *past twelve months* the Joint Rivers Committee had put pressure upon the Council with reference to the unsatisfactory condition of the farm. Mr. Tatton would tell their Worships that sometimes they might get a good effluent, but as a rule the effluent was unsatisfactory. Mr. Tatton felt that there must be some reason for this, and on the 10th July he instructed Inspector Jephson to visit the farm. The inspector went at 6-30 in the morning, and found a large volume of black decomposed sewage being discharged into the river from the old willow beds on the farm. He took samples and left duplicates of them with Mr. Preston, the manager. In the course of conversation the inspector ascertained that the beds were used to hold up the sewage from time to time, it being afterwards discharged into the Mersey. In this way it no doubt was a nuisance. The samples taken were analysed by Mr. Scudder, upon whose report the Committee instituted these proceedings. A similar state of things occurred again on the 3rd inst., when the farm was visited by Inspector Morrison at 4-30 a m. He did not think his learned friend would object to his making that statement under the circumstances, although there was no summons for that offence. He mentioned it for this reason. Mr. Tatton laid considerable stress upon this point, and he considered that the Joint Committee were entitled to say what the Council ought to do so far as the willow beds were concerned. First they ought to block up the present outlet. From that outlet they were discharging crude sewage which carried a quantity of sludge with it into the river Mersey. Mr. Tatton suggested that they should be ordered to construct a fixed weir and a storm-water overflow, with a sill at a given height. He (Mr. Wilson) understood that the Council had forwarded to the Local Government Board the necessary plans, sections, and estimates for the carrying out of further works. Those works, he was told, were very much on the lines of those in the Manchester Corporation case. He believed there were to be double-contact bacterial beds The plans were forwarded on the 23rd ult. He would not for a moment question the Council's *bona fides* in the matter, and as they were waiting for the sanction of the Local Government Board he would, subject to the learned Stipendiary Magistrate's opinion, be prepared on behalf of the Joint Rivers Committee to ask that a temporary order should be made against the Council to abstain from any offence against the Committee's Act, but that the order should be suspended for six months to enable the Council to agree with the Local Government Board. The order could be similar to that in the case of the Manchester Corporation. At the end of the time they could come before the court and state the requirements of the district. The district was a growing one, and the Local Government Board might have some suggestions to make on that point.

Mr. Crofton said he admitted to a certain extent that the farm was unsatisfactory and had been so for a long time. Some time ago the District Council asked Mr. Mansergh to advise them in the matter. It was while waiting for his report that they heard of the unsatisfactory effluents which Mr. Wilson had mentioned. It had taken Mr. Mansergh nearly twelve months to prepare his report, and when it was received it had to be considered and questions had to be asked and answered, and so it was only quite recently that they had received the complete document. Upon that report plans and estimates amounting to something like £86,000. had been prepared and were now before the Local Government Board. There had been no intention on the part of the Council to delay the work needlessly, and they were not awaiting the result of the Royal Commission. They intended to go forward with the utmost speed. He quite agreed that the order should be made and left in abeyance for six months. When the report of the Local Government Board had been received they would be in a position to proceed with the work.

Mr. Yates suggested an adjournment for three months. If the Local Government Board gave their sanction within that period there would be time for some part of the work to be carried out, which would be satisfactory to both parties. If they had not given their sanction, there could still be a further adjournment for three months.

Mr Crofton: They have had the application a month.

Mr. Yates: That is a very short time.

Mr. Crofton: Yes, I know it is usually about nine months before you can get anything out of the Local Government Board.—(Laughter.)

Mr. Wilson: Then I ask for a suspension of the order for three months. We will then be in a better position and know where we are. That would, of course (he added), be subject to the suggestion of Mr. Tatton regarding the outlet and weir being adopted.

An order was made accordingly. A nominal fine of 5s. was imposed on the defendants on the first information, and the Joint Rivers Committee were allowed five guineas costs.

Society of Chemical Industry.—*London Section.*—The first two meetings of the section will be held at the Chemical Society's rooms, Burlington House, Piccadilly, on the under-mentioned dates, when the following papers will be read and discussed:—Monday, November 6th, Mr. Walter F. Reid, "On 'Velvril' Material, a new substitute for India-rubber and Gutta-percha." Monday, Dec. 4th, Mr. Sherard Cowper-Coles, "The Fireproofing and Preserving of Timber." The meetings will commence at 8 p.m.

The Patent List.

list is compiled from Official sources in the Manchester l Laboratory, under the immediate supervision of E. Davis and Alfred R. Davis, who report professionally value of Chemical Patents.

PLICATIONS FOR BRITISH LETTERS PATENT.

f Making Pigments. T. J. O'Sullivan. 20,224. October 9.
tion for the Manufacture of Celluloid. J. Chaubet. 20,279. er 10.
ellers or Blowers. W. Whitehead. 20,304. October 10
Marble and Stone. H. A. Pryor. 20,347. October 10.
on of Boracic Acid and other Products. C. C. Moore. 20,384. er 11.
ture of Cement. F. Sehr. 20,387. October 11.
Sugar. W. J. Engledue 20,405. October 11.
s for Softening and Purifying Water. D. Adorjan. 20,422. er 11.
ng Waste Liquors. J. Bardsley. 20,443. October 12.
nents in the Process of Tanning. C. A. Sahlstrom. 20,503. er 12.
s for Producing Ozone. C. A. Sahlstrom. 20,504. October 12.
Marble. S. Weill. 20,518. October 13.
l Fuel Composition. L. J. Davies. 20,654. October 14.
t of Condensed Fumes containing Lead and Zinc Compounds. ershausen. 20,656. October 14.
g Coke Gas and Bye-products. P. Naef. 20,658. October 14.
g Gas and Bye-products. P. Naef. 20,659. October 14.
g Gas and Bye-products. P. Naef. 20,660. October 14.

TRACTS OF LATEST COMPLETE SPECIFICATIONS.

abstracts are specially prepared for the Chemical Trade Journal, RIGHTS *of publication are* RESERVED. *This is the earliest abstracts of Chemical and allied patents accessible to the public.*

nents in the Manufacture of Hypochlorite of Soda. M. Muspratt, Smith, and The United Alkali Co., Ltd., all of 30, James-street, Liverpool. Pat. 25,748. December 6, 1898.

a solution of hypochlorite, containing 12 to 14 per cent. by f available chlorine, has been prepared by any of the usual salt begins to be deposited, which is very detrimental to the absorption of chlorine. To avoid this tendency, a solution c alkali is treated with chlorine until the salt begins to deposit, e passage of the gas is arrested, and the salt removed. The gas is then again passed into the solution and the state of ion is advanced. The chief advantage gained by this inven- e obtainment of a clear solution of hypochlorite, which con- s than its equivalent of sodium chloride, and so permits the n of a solution containing a higher percentage of chlorine than erto been possible.

nents in the Manufacture of Hypochlorite of Soda. M. Muspratt, Smith, and The United Alkali Co , Ltd., all of 30, James-street, Liverpool, Pat. 25,925. December 8, 1898.

oduction of solid hypochlorite of soda has not been possible up esent, but according to the patentees, a considerable deposit of f this salt can be obtained by subjecting a solution, containing grammes of chlorine per litre, to a low temperature. (See Journal, No. 604, page 384).

nents in the Manufacture of Solutions of Hypochlorites of es. E. S. Smith and The United Alkali Co., Ltd., both of 30, James- Liverpool. Eng. Pat. 25,962. December 8, 1898.

as the solutions of alkaline hypochlorites, prepared in the usual louble decomposition, do not contain more than 7 per cent. of chlorine, by decanting the clear solution left after the first between equivalents of bleaching powder and a soluble alkaline adding thereto a further quantity of the salt and bleaching a second reaction takes place and produces a high-strength

nents in the Manufacture of Solutions of Hypochlorites of es. C. L. Higgins, M. Muspratt, E. S. Smith, and The United Alkali td., all of 30, James-street, Liverpool. Eng. Pat. 25,963. December 8,

esence of metals which are capable of forming higher oxides g acid properties, and particularly iron, is known to be pre- the formation of stable solutions of alkaline hypochlorites. quence, the following methods of procedure are suggested:— te or other salt of a higher metallic oxide may be reduced by ion of glycerine, alcohol, &c., and the precipitated ferric hydroxide removed. Again a salt forming an insoluble compound, (such as barium chloride in the case of a ferrate), may be added. Lastly the ferrate may be reduced to ferrite and the latter removed by precipitation.

Improvements in the Manufacture of Baryta. H. H. Lake, 45, Southampton Buildings, W.C. (communicated by La Société Bonnet Ramel Savigny, Giraud et Marnas, 15, Route de Vlaulx, Lyons). Eng. Pat. 25,027. November 2nd, 1898.

Barium carbonate (either natural or precipitated) is mixed with 8 per cent. of carbon, both being finely powdered. This mixture is introduced into a plumbago crucible, which is completely lined with cardboard or other vegetable lining. The mixture is covered with a light cardboard lid and the lid of the crucible luted down. The whole is then heated to 1,100° or 1,200 C., when the gases generated escape through the interstices of the lid and prevent the entrance of the external gases. On cooling, the block of anhydrous baryta is in the crucible surrounded by an envelope of calcined cardboard. In this way a complete decomposition of the carbonate is effected, that is to say, to the extent of 99 to 99 5 per cent.

Improvements in the Manufacture of Porous Diaphragms for Electrolytic Apparatus. T. J. Holland, Mount Ephraim House, Tunbridge Wells, and A. P. Laurie, Monkwood Cottage, Laughton, Essex. Eng. Pat. 5,200. March 9, 1899.

A volatile product, insoluble in water, is added to cement, and afterwards removed by volatilisation. Thus about 20 per cent. of anthracene or naphthaline may be added, the cement mixed with water, and, after settling, the anthracene or naphthaline driven off by heating, leaving the block of cement more or less porous.

Improvements in the Manufacture or Production of Resin Soap. C. Dreher, 7, Jacobstrasse, Freiburg, Baden. Eng. Pat. 24,375. November 8, 1898.

It is the constant endeavour of makers of resin soaps for sizing paper, &c., to reduce the quantity of alkali required for saponification. According to the present process, this is effected by dissolving the resin in crude phenols, and then saponifying. As an example of how this method is carried out, the following will suffice. About 100 parts of powdered colophony are heated to 100° C., and dissolved in 20 parts of crude carbolic acid, the boiling point of which is between 190° and 200° C. A solution, containing 9·5 parts of sodium carbonate in 20 of water, is then stirred in. This product, treated with water at 60° to 70° C., yields a uniform emulsion.

FATAL EXPLOSION AT HAYLE.

GOVERNMENT INQUIRY.

CAPTAIN J. H. THOMSON, Her Majesty's Chief Inspector of Explosives, attended an inquest on Monday at Hayle, Cornwall, to investigate the circumstances surrounding the fatal explosion at the National Explosive Company's works, by which William Harvey, aged 16, was killed. According to the foreman at the works, blasting gelatine was being made at the time. When attending the process, he saw blue vapour rise from one of the tanks. Knowing that to be an ominous sign, he shouted to Stephens, his mate, "We shall both be blown to pieces." A roar was followed by fire. The foreman escaped unhurt, but Stephens was burnt badly, and the boy, Harvey (who was cleaning an engine), was killed. Inspector Thomson said the whole building in which the explosion occurred was demolished, except the floor at the end where the machine stood. The Inspector described the process of manufacturing blasting gelatine. He had not the smallest reason to doubt the evidence of the foreman. It could only be supposed that the boy was paralysed with fear, and, by remaining still, missed his opportunity to escape. The whole occurrence was the work of three or four seconds at the outside. Two things might have given rise to the explosion—either the presence of some foreign matter, such as a fragment of grit or a piece of metal; or a hard knot of nitro-cotton, which was one of the ingredients, and which, by contact with the warm plate, would be rendered more sensitive. He found it difficult to say which of the two causes was the more probable. As the prevention of similar accidents in the future was a highly technical question, he thought the jury might very well leave it to him and the manager of the factory. The jury might accept his assurance that if he could see a way in which the manufacture might be rendered safer, he should not hesitate to make a recommendation. Further, the jury might take his assurance that if he made such a recommendation, the proprietors of the factory would not hesitate to adopt it. There was no blame to be attached to anyone in this case.—The jury endorsed the expert opinion that the explosion was purely accidental.

BENZOL FROM COKE OVEN GASES.

THE Compagnie pour la Fabrication des Compteurs et Matérial d'Usines à Gaz has introduced an apparatus for mixing gases and liquids, which is also suitable for separating benzol constituents from coke oven gases. It consists of a number of chambers set side by side to form compartments, the partition walls of which are pierced in the centre to allow of the passage of a large shaft carrying a number of rotating drums, one in each compartment. Each drum contains a number of sections consisting of two perforated metal sheets mounted between plates, so as to carry a series of rectangular troughs. The sectors dip in the heavy tar oil, or other benzol-absorbing liquid, placed in the chambers in such a manner that the troughs carry down with them into the liquid a portion of the gas present in the upper part of the chambers, which gas being then liberated, ascends through the liquid in the form of bubbles intimately mixed with the absorbent oil, which is thereby enabled to dissolve out the benzol constituents of the gas. As the troughs re-ascend to the surface, they become filled with the oil, and on reaching the uppermost limit of their travel they tip over and discharge the oily liquid on to the descending troughs in the front of the drum, the impact causing the liquid to disperse in the form of fine spray throughout the upper part of the chamber, and thereby to come into intimate contact with the gas therein. Consequently, the gas in its passage through the various compartments of the apparatus is subjected to a double washing, the result of which is to remove the benzol matters, and bring them into a state of solution in the heavy oil, &c., employed, from which they can afterwards be recovered by suitable means.—*Zeitschrift für angewandte Chemie.*

THE MANCHESTER SEWAGE DIFFICULTY.

AT the meeting of the Manchester City Council on Wednesday, Ald. Sir Bosdin Leech moved that a communication from the Local Government Board on the subject of the application of the Corporation for money to construct bacteriological beds for the purification of sewage should be referred to the Rivers Committee, with an instruction to report thereon, and to submit to the Council full particulars, with plans, sections and estimates referred to in the letter. This communication, which requires the Corporation to lay down a larger area of filter beds than was at first anticipated, has already been published. The report of the experts appointed to report on the question by the Corporation had just been received, said Sir Bosdin Leech, and this report was accompanied by diagrams and plans which thoroughly checked the conclusions arrived at. Until that report had been studied by the members it would be unwise to discuss the matter, and he was quite sure that had Mr. N. Bradley seen the experts' report they would not have been troubled with his amendment that day. The report was a convincing one, and bore out the assertion that the bacteriological system was no longer a matter of controversy. In dealing with the problem, the Rivers Committee hoped to be able to work more harmoniously with the Joint Rivers Committee in the future. For the past two years the Rivers Committee had had an uphill fight, and he asked the Council to have full confidence in that Committee.

Mr. Dreyfus seconded the motion.

THE CULVERT SCHEME ADVOCATED.

Mr. N. Bradley proceeded to move the following amendment:—"That in view of the report received from the Local Government Board after most careful inquiry on their part into the experimental bacterial scheme proposed by the experts, and in view of the enormous initial cost the city will have to bear if such scheme is carried out—namely, more than £700,000.—and the great cost of yearly maintenance, this Council do now abandon the proposed scheme; also that a special committee be appointed to draw up a scheme for conveying the properly treated tank effluent from the works at Davyhulme to the tidal waters of the Mersey." Mr. Bradley, who was received with applause by the friends of the culvert scheme, said this was probably the last time that he would address the Council, as he retired in November. Sir Bosdin Leech had said that he (the speaker) desired to fire a parting shot, but he had always been an advocate of the culvert scheme. He did not want to interfere with the desires of the Local Government Board; he was, in fact, their strongest advocate. The letter from the Board sanctioning the bacterial system contained such conditions that it was evident that the Board wanted the Corporation to see the cost and then abandon that system. It was true that a majority of the Rivers Committee favoured that system, but that majority were so circumstanced that from the first they had to advocate it. Mr. Bradley went on to point out that the cost of attending to the beds would amount to £100. an acre, thus at once absorbing the sum which Sir Bosdin Leech contended would be saved in chemicals. Discussing the fact that no other place in this country had adopted the system on an extensive scale, he read a report from the engineer to the *State Board of* Health, of Boston (Mass.), to the effect that in the one instance where the system got beyond the experimental stage in that State it had been abandoned in favour of precipitation by chemicals. (Hear, hear.)

Alderman Richards, who seconded the amendment, described himself as "a great advocate of the culvert scheme." He contended that that scheme meant finality, whilst the same could not be claimed for the bacteriological system.

ADVISED TO APPROACH THE JOINT COMMITTEE.

Alderman M'Dougall, while complimenting Mr. Bradley on his speech, said he could not support the amendment. Having regard to the position of the Corporation, respecting the prosecution by the Mersey and Irwell Joint Committee, the Corporation could not refuse consideration to the communication of the Local Government Board. The Rivers Committee should approach the Joint Committee with a view to seeing what would satisfy them. Knowing the spirit of that Committee, he could say that wherever an authority was in earnest they were considerate. He thought the Committee would allow them time for trials on a larger scale.

Mr. Grimshaw urged the members of the Council to put aside their personal predilections in favour of this or that scheme. Mr. Bradley thought he was right, and just in the same way President Kruger thought he was right. (Laughter, and cries of "Oh!"). The Rivers Committee had had their view of the matter amply supported by experts, and he contended that the bacteriological system ought to be adopted.

Mr. Wilson supported the amendment, stating that his objections to the bacteriological system were many. His great objection, however, was that none of the supporters of the scheme could point to any other large town where it was in use.

Mr. Milnes also supported the amendment.

Mr. Dreyfus was of opinion that the discussion was premature, inasmuch as the Council had not had an opportunity of taking the experts' report into consideration.

Alderman Mainwaring, speaking in favour of the amendment, said that if he had been asked to vote merely in favour of an experimental scheme he would have done so, but the Rivers Committee asked for the whole scheme or nothing. He asked them not to go on with a scheme which would land them in municipal bankruptcy. (Laughter). He hoped that Councillor Bradley's "parting shot" would prove the death of the bacteriological scheme.

The Lord Mayor at this stage of the discussion said he thought it had gone on long enough, but he was in the hands of the Council. A number of members agreed with him, but the majority were in favour of allowing one or two other speeches.

Alderman Walton Smith urged that as the Rivers Committee had not yet formulated their scheme in accordance with the new requirements of the Local Government Board the matter ought not to be taken out of their hands at present. While reserving his right to criticise, he was opposed to the amendment.

Alderman Sir Bosdin Leech, speaking on the amendment, said until the committee knew what was required to be done they could not formulate an estimate of the cost. As to the statement that the majority of the committee were pledged to the bacterial system, he pointed out that the Council was responsible for their selection. He had to admit that there were divisions of opinion on the committee. The bacterial system in the State of Boston had not been the failure that Mr. Bradley said it was. Liverpool was now considering a scheme for treating its sewage, and if that was the case it was not likely that that city would allow Manchester sewage to be poured into the Mersey untreated.

THE CULVERT SCHEME AGAIN REJECTED.

Mr. Bradley's amendment in favour of rejecting the bacterial system, and referring the whole subject to a special committee, was then put and lost, 14 voting for and 35 against.

Alderman M'Dougall then moved, and Alderman Smith seconded, a second amendment, which was, "That the committee be further instructed to embody in their report the views and observations of the three experts on the communication of the Local Government Board, and also to ascertain and report whether the Mersey and Irwell Joint Committees will be satisfied for a limited period with the working trials of six acres of bacteria beds."

Alderman Sir Bosdin Leech said as chairman of the Rivers Committee, he would accept the amendment.

The resolution which Sir Bosdin had moved, and the amendment which he had accepted as an addition to it, were then approved of by the Council.

KLEIN'S COOLERS.—We learn that the Corporation of Bolton have decided to adopt a Klein's Patent Fan Water Cooler at their electricity works for cooling the water requisite for condensing the steam from engines of 3,000 horse-power. The fans and also the circulating pump are driven by electric motors, and the cooler is to work in conjunction with engines made by Messrs. John Musgrave and Sons, of Bolton.

Reports of Companies.

HE BRITISH PETOLITE AND FUEL CO., LTD.

eeting of this company was held in the Great Northern Hotel, ecently. The Chairman explained that in view of the fact that the shareholders were Yorkshire people, they had deemed it hold this statutory meeting in Leeds. As they knew, a person De-Humy had written letters to the newspapers with regard to ent of the company, which had done a certain amount of , rather to the vendors than the company. At the present, were pending between the vendor, syndicate, and De-Humy, ler the circumstances the directors had decided not to go to t until the question of the validity of the patent had been They were now in possession of the Thames works, and were cturing ordinary briquettes and petolite briquettes, the latter r testing purposes. They had also put down some testing plant s, and would shortly be able to manufacture briquettes locally nostrop sludge. They hoped to show the Leeds Corporation a tiding over the difficulty of dealing with their solid sludge. per cent. of the briquettes exhibited that afternoon were p.

EUROPEAN PETROLEUM CO., LTD.

COMPLETE LEGAL STATUS IN RUSSIA.

third ordinary general meeting of the European Petroleum d , was held on Tuesday last at the Hall of the Institute of ed Accountants, Moorgate-street, E C , Mr. H. J. Pollock, he chairman of the company), presiding.

Secretary (Mr. Arthur T. Platt) having read the notice convening ting,

Chairman said : Gentlemen,—You have heard the notice con- the meeting as read by the secretary, and it now becomes my address you upon the report and accounts which we have ed. It will also become my duty to propose the declaration and t of a dividend, whilst it will be the duty of some shareholder se and to second the appointment of our auditors. We have, rdance with our custom, endeavoured to put before you, as lders, a full report on all the topics which can interest you, and cular we have always taken care to put in our report something ll the properties we hold. This year, owing to circumstances trust will not occur again, but which were due in some measure death of Mr. Matticvich, our manager, and the consequent isation of the staff, we have been unable to furnish you with our nd accounts as early as we should have wished to have done. taking steps to prevent such difficulties arising again at Baku, ope that for the future we shall always get our report and s ready for a meeting in August each year. In the report and s we have followed our usual practice, and I really have nothing o the short description of each of the properties which appears eport. If I turn to the

PROFIT AND LOSS ACCOUNT,

like the shareholders to appreciate that the gross profits for the months, after charging working expenses, have amounted to 1 , as compared with £92,724. for the previous thirteen months, an increase of £79,987. (Applause.) The net profits for the ter charging maintenance, interest on loans, and setting aside . for depreciation, amount to £54,604 , which, with the balance forward, making in all £57,750., we propose to allocate as :—6 per cent. on the preference shares for thirteen months, which kes the date coincide with the date of the balance sheet—you ember that we were a month out last year—£19,500 ; and 8 per the ordinary shares, £10,000 , leaving a balance of £28,250., f you add together, makes a total of £57,750., the amount of our I have given it to you This balance it is proposed to allocate ys :—To write off from preliminary and transfer expenses £5,000. that is very important, because if we can carry out our scheme or me for the adjustment of our capital, it is very wise to get rid reliminary expenses as soon as possible. (Applause) Then, I e ought to place to reserve account not less than £20,000. which, sum we propose to carry to depreciation (for I am very anxious should steadily provide the funds for depreciation of the vessels), ke a total of £45,000. And then we propose to carry forward year no less than £3,250 The next figure of the report is an nt one, showing that in addition to the sum set aside for tion—namely, £25,000—and the sum put to reserve, £20,000. this year spent and paid for, mainly out of profits, no less than . The result of this has been that at present we cannot advise ribution of dividend to the deferred shareholders. We have ry and keep abreast of the production, and to do that we have pend no less than £64,479. in sinking new wells, and the funds have been provided mainly out of profits. I will not take up your time by reading the position of the company's properties, but it is extremely satisfactory to me to be able to say that the licence to the company to hold and work oil properties in the Caucasus has been granted by the Imperial Government of Russia (Applause.) I have noticed in some of the newspaper comments that they make inquiry why this was not done before the prospectus was issued. This company was formed and the prospectus issued in 1896, but in those days, so far as I know, there were no regulations directly recognising foreign companies trading in Russia, and it was only subsequent to that date that the authorities in Russia would have to deal with these matters decided that no company should be free to trade unless they had the sanction of the authorities to do so. I was deputed, as acting Chairman, to go to St. Petersburg this year, where I had the honour of meeting Mr. de Witte, the Russian Minister of Finance, and of seeing others whose consent was equally important I was received with the greatest courtesy by them all, and we have now a licence to hold and work oil properties in the Caucasus and a complete legal status in Russia. (Applause.) I must not pass on to the scheme that we are thinking of without saying one or two words about our property in Grosney and Roumania. At Grosney we have held our property in reserve, but our neighbours, the Belgians, are

DOING ENORMOUSLY WELL

with the property they have acquired, and we have no reason to doubt that when we have the money to spend on wells at Grosney we shall make a like success. In Roumania we are sinking a deep well, and have already got 12 miles of pipe-line to Bustenar, and I have little doubt that from the deep well in Roumania we shall get very favourable results. That was the position when I was considering my speech yesterday, but I am proud to say that I have a letter from Roumania this morning which shows we have reached this result, because our agents at Bucharest write us as follows :—"Late last night we received a message from Bustener saying that they had struck oil at Fagete boring, and we are this morning in receipt of a letter from there advising us that at M. 211 90 they struck oil sand, and that on Wednesday last they got about 5,000 kilos of oil, or, say, half a truck load. This production may not be continuous, but as the gases are very strong it is just possible that we may have a regular production." That is our first return from Roumania, but it is likely, I think, to be very profitable and to continue. (Applause.) If you have followed what we have said in the report and what I have stated to-day you will appreciate the fact that with this supply of oil which we have now got in Roumania we can carry it in our own pipe-line

WITHOUT COMPETITION

from other people, to the railway. We expected at one time to join the Stena Company in that respect, but we preferred to have our own pipe-line, and we have built and paid for it. In Galicia we are simply holding the company's properties. The Thames Haven Refinery is now working efficiently. It is situated at Thames Haven which is the nearest place to London where the refining of crude petroleum is permitted. From its situation it does not infringe the rules of the Port of London, and our trade there is gradually growing, and will, I think, prove very profitable (Hear, hear.) In the case of our fleet, last year the mortgage on the fleet stood at £206,637. ; during the year, by sale and repayments, amounting together to £5,713., that mortgage has been reduced to £151,923. Our present dead weight tonnage is 40,300, valued at £319,313., or under £8. per ton. I think everyone in this room must be aware of the cost of building petroleum ships, and that you could not do it for that figure. It would run into nearly £15 a ton, if you had to order a petroleum vessel. We have been fortunate in chartering the vessels at a price that gives us a good profit for the next three years, and the price at which the vessels stand in our books is, I think you will admit after what I have said, a very moderate one. Then we come to the

EXPLORATION CONCESSIONS.

We are constantly receiving applications from going concerns and from concessionnaires that we should look into their businesses, and if possible, undertake to work them, and I think the shareholders are very largely indebted to my colleague, Colonel English, who, in his constant visits to Baku, Turkey and elsewhere, has been able to secure the right practically without charge to the company, to certain concessions which we believe will result in a very large profit for us. (Hear, hear.) We cannot do everything, but I do believe that our concessions, tested as they have been by Colonel English, tested by experts who are in our sole employment, and finally acting under Professor Redwood's advice, will one day bring in a very large return to our shareholders. I am not at liberty to give you particulars, because at the present moment we have not had the firman from the Turkish Government, but we look upon that matter as one which will give very great profit to our shareholders. And this brings me to the last sentence of our report, which must have been obvious to everybody who has at all followed our affairs. Our difficulty has been the

WANT OF WORKING CAPITAL.

I think we shall be able by a rearrangement of the capital to put an end to this, and it will be our object, if we have your support, to re-arrange this capital by paying off the existing and creating other debentures on terms which will give us the cash for the working capital which we require. (Hear, hear.) So far as the price of crude oil is concerned, it is satisfactory to the directors to be able to say through me that the price of oil to-day is exactly double what it was when my colleagues and myself first came into the business; in other words, the demand for crude oil in Russia exceeds the supply, and I am told that the price will even go higher. When we began business the price was 7½ copecks per pood, and now it is gone to over 15 copecks. I have only to add that due notice will be given of our arrangements when we are ready with them, and that it will be necessary to consult the shareholders before we can conclude them. I beg to move: "That the report and accounts submitted to this meeting be and the same are hereby received and adopted." (Applause.)

Mr. Arthur Laing seconded the motion.

Mr. Ashby said he thought the report was in many respects satisfactory, especially to those who were either preferred or ordinary shareholders, but from the point of view of the deferred shareholder it was not so satisfactory as he should have liked. Considering the large increase in the profits of late years, he thought the deferred shareholders might reasonably have received a small dividend, say, of 3 or 4 per cent. In his opinion it was absolutely necessary to increase the working capital of the company. He calculated that their directors had had to borrow £437,000. at over 14 per cent. He considered they ought to be able to borrow money at a smaller rate of interest.

The Chairman, in reply, said that so far as the question of a dividend on the deferred shares was concerned, the directors had had to keep abreast of the company's competitors, and to enable them to do that they had only had their profits. That, he hoped, would be entirely met by the rearrangement of the capital. It was the unanimous view of the board that it was impossible on this occasion to pay any dividend on the deferred shares. In referring to the rate of interest at which money had been borrowed, Mr. Ashby had not taken into consideration the fact that the company had to pay interest on the debentures. The total amount on which they had to pay interest was not £400,000, but £793,364. He had a keen sympathy with the deferred shareholders, and he could assure them that when the directors came to rearrange the capital they would not be forgotten.

The motion was then put and carried unanimously.

The Chairman next moved "That a dividend of 6 per cent. on the preference shares for the 13 months ending 30th June, 1899, be and is hereby declared."

Mr. J. S. Barwick seconded the motion, which was unanimously agreed to.

The Chairman also proposed the declaration of a dividend of 8 per cent. on the ordinary shares.

The motion was seconded by Mr. W. Fowler, and carried unanimously.

Messrs. Price, Waterhouse and Company were reappointed auditors, and a vote of thanks was accorded to the chairman and directors.

The Chairman, in acknowledging the compliment, said the directors were very much indebted to the staff. He did not think the company could have done as well as it had if the directors had not had Mr. McMullen as general manager to assist them. Ever since he had become manager the business had progressed. (Hear, hear.) He had unbounded confidence in him, and so had every other member of the board. If they re-arranged their capital they would be able to strengthen the board, and he believed that the new comers would have as much confidence in Mr. McMullen and his staff as the present directors. (Applause)

The proceedings then terminated.

DIVIDENDS, &c.

Castner Kellner Alkali Co., Ltd.—The directors have declared an interim dividend at the rate of 8 per cent. per annum for the half-year ended the 30th ult., payable on the 1st prox.

Brunner, Mond, and Co., Ltd.—On Wednesday, at Winnington Hall, Northwich, Sir John Brunner, M.P., presided over the half-yearly meeting of the directors of Brunner, Mond, and Company, chemical manufacturers. It was decided to declare an interim dividend at the rate of 30 per cent. per annum on the ordinary shares for the half-year ending September, being an increase of 10 per cent. on the corresponding period of last year. They also passed a dividend of seven per cent. on the preference shares.

The National Salt Co.—The consolidation of the salt industry of Michigan under the management of the National Salt Co., of New York City, puts that company in control of probably 95 per cent. of the salt output of that State, amounting to 4,500,000 bbls annually. This, it is said, makes the National Salt Co.'s total available output 10,500,000 bbls. per year.

ARTIFICIAL *V.* NATURAL INDIGO.

THE depressing report on the indigo industry in Behar has aroused considerable interest, and question of the future prospects are stated as follows by Messrs. Parsons and Keith, in reply to a query from Sir W. B. Hudson, late President of the Behar Planters' Association:—With reference to your enquiry as to the position of natural indigo in competition with its substitutes, we would offer the following remarks:—We think there is no question that indigo is one of the most reliable of dyes; it is very permanent, and withstands the action of the sun, rain, and sea water, and seems to actually improve and preserve the fibre dyed with it. Dyers know that indigo-dyed cloths and cottons always give satisfaction, and, as at the present prices of indigo they make a very good profit as well, we think it is certain they will want to see some very material advantage before giving up its use.

Alizarine blue, which was the first strong competitor with indigo, is less permanent and has not the preservative effect on the fibre. It is cheaper to use, and has no doubt supplanted indigo for certain classes of work. Indigorein, brought out about two years ago, is no doubt the most serious competitor of natural indigo. It is said to be chemically identical with indigotine, which is the principal colouring matter of indigo. It has been very largely tried by dyers all over the world, and the reports on it are very varying, but it is generally admitted to be dearer to use at its present price than indigo. As to whether it is as permanent as indigo and will have the same preservative properties, we think it has not been in use long enough or to a large enough extent for any reliable opinion to be formed. Judging from the available statistics, the consumption of indigo shows no falling off of late years. In fact for the past few years it would appear that the consumption has been considerably larger than the production, for the stocks in London have been drawn on to the extent of 9,000 chests, and stocks abroad are reported to be also very considerably reduced.

Indigorein was said to have largely superseded indigo in Germany and Austria, but these countries imported a considerable quantity direct from Calcutta this year, and they have also been large buyers on this market of late.

The textile industries are constantly increasing with the growth of population and the opening up of new countries, so that while indigorein may supplant indigo for some purposes as alizarine has done, yet there will probably be ample scope for indigo in those branches of the trade where it is acknowledged to be, so far, *facile princeps*.

We may mention that the two products from which indigorein is said to be made—viz., napthaline and toluole—have both risen in price this year, the former about 25 per cent., and the latter nearly 60 per cent.

Previous to this Messrs. Mewburn and Ellis set forth the case for artificial indigo as follows:—

At the present time the manufacture of synthetic indigo is practically confined to the celebrated firm you mention, the Badische Anilin and Soda Fabrik at Ludwigshafen. They have several patents in respect of their manufacture both in England and Germany. We believe some of their later improvements have not been patented, but have been worked secretly, and consequently will not be open to their rivals like the patented improvements on the expiry of the patent monopoly, so long at least as the secret can be kept.

Besides the Badische Anilin Co. there are two or three other firms interested in the production of synthetic indigo. On the expiry of the original Badische patents in four or five years, it is to be expected that there will be some competition leading to a reduction of price, but we do not anticipate that there will be much cutting of prices for some time.

There is, however, every reason to suppose that the manufacture of synthetic indigo will run the same course as that of all other coal-tar dyes, which has invariably been a gradual and considerable fall in price. The price of natural indigo has already been reduced owing to the competition of the Badische Co., but there is no reason why the present prices should not be maintained until their patent monopoly ceases.

You refer in your article to the want of fastness of artificial indigo and the injurious effect of "a few showers of rain." On this point we can offer no opinion, but the relative fastness of natural indigo and synthetic indigo to the action of light has been the subject of experiment which will be found recorded in the *Revue Generale des Matières Colorantes*, of March 1, 1898. The conclusions formed by Mr. Camille Kurz, of Smichow, there recorded, are as follows (translated):—

"For the space of three months I have made daily comparisons of pieces dyed in this vat with pieces of identical fabric dyed in other vats of natural refined indigo, and the result of my observations has been very uniformly as follows:—The pieces are as dark as those dyed with the same quantity of natural refined indigo.

"The shade obtained is, without a doubt, much more pure, more beautiful, more brilliant, less greenish, as red as that obtained with natural indigo, which appeared grey and dirty (see samples Nos. 19 and 20).

"The pieces lose less colour in rubbing than the pieces dyed with natural indigo.

"As regards resistance to washing, soap, light, this is in the two cases perfectly equal, with this difference always, that natural indigo exposed to light becomes still more dull, whilst synthetic indigo preserves its bright shade, only losing in intensity."

Although Mr. Kurz's remarks may have been made rather from the standpoint of the artificial article, yet his conclusions are worth noting.

There is one advantage which, as it seems to us, the manufacturers of synthetic indigo have over natural indigo. Dyers are obliged, in the course of their business, to dye to a particular shade. Synthetic indigo is constant in its composition, and is in a form more readily handled by the dyer.

If we might tabulate the position and effect of synthetic indigo on the manufacture of natural indigo, it would be as follows :—

1. That there will not be much cutting of prices for some few years.
2. That the cost of making synthetic indigo will run the same course as other coal-tar dyes—viz., the cost of manufacture will gradually decrease.
3. That the cost of making indigo in India will not decrease in the same proportion.
4. That dyers prefer synthetic indigo, being able to rely on its strength.
5. That eventually synthetic indigo will have a very serious effect on the natural indigo trade.

These statements have finally elicited the following criticism, in favour of natural indigo from Mr. E. C. Schrottky, of Wiesbaden, who says :—

"Messrs. Mewburn and Ellis, give some details and comparative statements which require correction.

The indigo industry in India has up to the last few years occupied an almost anomalous position in this century of scientific progress and invention. Cultivation and manufacture have remained practically the same as they were at the end of the last century.

The industry has, on the whole, been a paying one until this recent competition of an artificial product, and planters as well as agents were content to let things remain as they were. There have been chemists of an inventing bend of mind who have of late years occupied themselves with indigo manufacture, and endeavoured to improve the same and increase the yield of dye from the raw material. But the encouragement they received has been too limited, and was confined to a few individual planters. The industry generally, as well as the financing agency houses and the buying trade, discouraged all improved methods of manufacturing processes necessitating the use of chemicals, and indigo known to have been made by any such improved methods was prejudiced at the indigo sales, if not altogether boycotted, so that enterprising planters lost courage and dropped all improvements in manufacture, even those of established merits.

The buying trade had also, up to lately, rested upon a most primitive basis of buying, dating also from the last century. Valuations were and are still being made on comparison with standard samples of certain supposed values, and the buying trade was therefore suspicious of any alterations in the methods of manufacture which might produce an equally good looking article but of perhaps less dyeing value.

All this is now rapidly changing. The indigo industry is ripening, and is now more prepared than it was a few years ago to benefit from the scientific progress of our century.

The buying trade is more and more abandoning the buying on comparison with standard samples, and buys now to a great extent on analysis, paying a certain amount per unit of indigotine, which varies slightly according to the mechanical conditions of the paste.

Indigo planters have rallied together in face of this threatening competition, are now employing distinguished chemists, and are taking practical steps to improve their methods of cultivation and manufacture.

The financial agency houses are realising the seriousness of the situation, and are taking the lead to help their constituents in the only way in which they can be helped—viz., to establish experimental factories where improvements in manufacture and cultivation can be worked out and tested.

It is not generally known that only about one-third of the dye in the plant is obtained by the ordinary methods of manufacture, and that, moreover, waste to the extent of 20 per cent. of the ultimate outturn occurs therein.

There is, therefore, an ample margin for improvement in the manufacture alone, besides the progress which can be made by improved methods of cultivation and drainage, and the use of new and selected seed.

The chemistry of indigo manufacture is still somewhat obscure ; the dye in the plant is not present in a merely extractable state, like theine in tea leaves, but has to be developed from certain basic products, which is most profitably done by a prolonged fermentation of the plant, the agency being then microscopic life. This has made improvements in manufacture difficult, for chemists are rare who are conversant with, and thoroughly understand, the conditions of low microscopic animal and vegetable life, and who, in addition, possess the necessary perseverance, the necessary inventive power and gift to devise experiments, to carry them out, and to interpret correctly the results. But such chemists will doubtless be found, and the benefits which the industry will derive from their work will be more important and wide-reaching than even the most sanguine of planters hope for at present. One of the leading agency houses is already fitting out one of their factories in Behar to test, next season, a new process for which an out-turn of more than double the quantity of dye is claimed, and, in my opinion, improvements will not even stop at this.

Messrs. Mewburn and Ellis are therefore wrong in thinking that the cost of making indigo in India will not decrease in the same proportion as they expect the cost of the artificial indigo to decrease. The cost will, on the contrary, decrease to an extent which will enable the natural indigo industry to meet the competition successfully, and come out of it victoriously.

LIQUID AIR AS A BLASTING AGENT.

EXPERIMENTS MADE IN AUSTRIA.

A series of tests of liquid air were made a few weeks ago by the Vienna Crystal Ice Company, in the presence of representatives of the Austrian Technical Military Committee. The fluid was obtained from Linde's works in Munich, and conveyed to Vienna in flasks, having the Dewar vacuum jacket to check evaporation. When it was despatched the mixture contained 75% of oxygen, but, seventy-two hours later, when the stuff was used, enough nitrogen had evaporated to make the percentage of oxygen 85. Cartridges were made of liquid air, mineral oil (petroleum), and Kieselguhr. The oil seems to have taken the place of charcoal in gunpowder, in supplying an inflammable material which would develop a large quantity of gas. The liquid air was almost pure oxygen, and tended to promote combustion. The Kieselguhr served the same purpose that it does in dynamite. It is a silicious earth used as an absorbent to hold the nitro-glycerine. The cartridges are spoken of technically as "oxylignite." They were prepared in two ways. First, the Kieselguhr and oil were mixed in a basin, and the liquid air added gradually. The resulting paste was ladled into the cartridge-case, which was coated with asbestos, probably to check the absorption of heat from surrounding substances. The second method of preparation was to charge the cartridge with Kieselguhr and oil, and add the liquid air later. The second set of cartridges were encased in sheet-lead. Owing to the intense cold, the men did not care to handle the cartridges, and there was difficulty in attaching detonators and fuses. In the meantime much of the oxygen evaporated, especially from the cartridges having lead cases. These latter proved weaker than the first set. One of them missed fire altogether. The cartridges were inserted in holes 30in. deep in the rock when fired. Artillery General Engineer Hess made the following comment on the tests : "The preparation of the cartridge is wasteful, and dangerous to the eyes, and, owing to the rapid evaporation, it is further impossible to guarantee the strength of the cartridge, even in the roughest way. Kieselguhr and oil seem to be suitable absorbents, and oxylignite an effective blasting agent, though comparative tests have not been made yet. The cartridges must be used within, say, fifteen minutes of their preparation. There is no danger, hence, from missing fire. But, on the other hand, it will be difficult to fire many cartridges simultaneously, and, strictly speaking, the cartridges should be made on the spot, and be in a very hard condition. That would scarcely be possible below ground ; the spurting liquid might break the glasses of the hot safety lamps, and it remains to be investigated whether the large volumes of oxygen might not lead to spontaneous ignition of marsh gas, or coal dust. The evaporating oxygen would, on the other hand, improve the air, and the blasting would not contaminate it."

Adulterated White Lead.—An important prosecution under the Merchandise Marks Act came before Sheriff Boyd, at Glasgow, recently, the Scottish Oil and Chemical Co., Ltd., 20, Union-street, Glasgow, pleaded guilty to a charge of having, in June or July, 1898, in their premises at Keppochhill, sold as "genuine white lead carbonate in oil" an article which was adulterated with sulphite of lead to the extent of 10·90 per cent., and with sulphate of lead to the extent of 5·45 per cent. The prosecution was at the instance of the Board of Trade, who were represented by Mr. Dudley Stewart, instructed by Mr. Hart, while for the respondents the counsel was Mr. R. S. Horn, instructed by Mr. J. A. Todd, of Messrs. Downie, Aiton and Aiton. Mr. Horn explained that there had been absolutely no intention of defrauding the purchasers, and contended that the offence was so trivial as to merit nothing more than a merely nominal penalty. Mr. Stewart, however, stated that sulphate of lead was well recognised as an adulteration of carbonate of lead ; the former did not make so good a pigment and was of lower commercial value, being something like £2 or £3 per ton less in price. Sheriff Boyd imposed a fine of £5, with £15 costs.

GOLD OUTPUT IN THE RAND.

A DECREASE FOR THE MONTH.

THE output from the Witwatersrand district during the past month (in bullion ounces), as cabled by the Chamber of Mines of the South African Republic, amounts to 411,762 oz., as against 459,709 oz. for August and 384,080 oz. for the corresponding month of 1898. From the outside districts 14,794 oz are reported, as against 22,399 oz. for August and 24,422 oz. for the corresponding month last year. The total return, therefore, made to the Chamber amounts to 426,556 oz., as compared with 482,108 oz. for the previous month, a decrease of 55,552 oz. The following are the monthly returns from the Rand district alone since the beginning of 1895 :—

	1895.	1896.	1897.	1898.	1899.
	oz.	oz.	oz.	oz.	oz.
January	177,463	148,178	209,832	313,826	410,145
February	169,295	167,018	211,000	297,975	404,335
March	184,945	173,952	232,067	325 907	441,578
April	186,323	176.707	235,698	335,125	439,111
May	194,580	195,008	248,305	344,160	444,933
June	200,941	193.640	251,529	344,670	445,763
July	199,453	203,873	242,479	359,343	456,474
August	203,573	213,418	259,603	376,911	459,709
September	194,764	202,561	262,150	384,080	411,762
October	192,652	199,889	274,175	400,791	—
November	195,218	201,113	297,124	393,310	—
December	178,428	206,517	310,712	419,504	—
Total	2,277,635	2,281,874	3,034,674	4,295,602	3,913,810

Trade Notes.

THE SALT COMBINE.—On Wednesday afternoon a meeting of the investigation committee appointed by the salt manufacturers of the kingdom to formulate a combine scheme was held at Northwich The trade of Cheshire, Worcestershire, Staffordshire, and Lancashire was represented, and the committee appointed as chairman Mr. Thomas Ward, managing director of the Salt Union, Ld , and as vice-chairman Mr. Howitt, managing director of Bowman, Thompson & Co., Ld., chemical and salt manufacturers. It was stated that the combine, which is intended to secure stability of prices and promote the interests of the salt trades, is practically accomplished and that the terms of amalgamation are almost all agreed upon.

PERSONAL.—We notice that the chemical trade is represented in the contributions to the Leeds (Branch) Aid Fund for the Transvaal Soldiers, Mr. A. E. Brotherton having contributed £500., and Messrs. J. Watson & Sons, Ltd., £100.

Obituary.—The death is announced as occurring at Adirondacks, New York State, of Mr. Hamilton Y. Castner, managing director of the Aluminium Co., at Oldbury, and of the Castner-Kellner Co., at Weston Point, near Runcorn. Mr. Castner, an American citizen and a thorough chemist, came over to England about 12 years ago, with the object of working in this country a patented process for the manufacture of the alkali metal sodium. Here he became acquainted with some gentlemen interested in the production of aluminium by a process in which the metal sodium was required. Mr. Castner devoted himself to this manufacture with such success that the company were able to reduce the price of aluminium from pounds to shillings.

INSTITUTE OF MINING AND METALLURGY.—The ninth session of this society opened on Wednesday, this week, when Mr. J. Douglas read a paper on the "Treatment of Copper Mattes in the Bessemer Converter." The following papers, amongst others, are already in hand, and will be read during the session :—"On the Cripple Creek Goldfields," by T. A. Rickard, M. Inst. M M. ; "Notes on the Coalfields of New Zealand," by James Park, M Inst. M.M ; "Some Notes on the Chlorination Vat Process as applied to the Auriferous Concentrates of the Santa Anna Mine, Brazil," by Spencer Cragoe ; "The Mineral Resources of New Caledonia," by F. Danvers Power, M. Inst. M.M ; "Notes on the Cyanide Process," by H. Howard Greenway, M. Inst. M.M. ; "On the Electro-Deposition of Chromium," by S. O. Cowper-Coles, M. Inst. M.M. ; "The Argentiferous and Auriferous Copper Ores of Southern British Columbia," by J. D. Kendall, M. Inst. M.M ; "Gold Mining in British Guiana," by J. H. Powell, M. Inst. M.M. The offices of the Institution are situated at Nos. 27 to 33, on the 3rd floor of Broad Street House, and include a reading room for the use of members.

SOCIETY OF CHEMICAL INDUSTRY.—*Manchester Section.*—The first meeting of the session will take place on Friday, November 3rd, 1899, at seven o'clock p.m., in the rooms of the Chemical Club, Victoria Hotel, Manchester. In consequence of the serious illness of the chairman, Dr Watson, the session will be opened by the vice-chairman, Dr. Grossmann, who will deliver an address on "The Limits of Accuracy in Technical Analysis." After the conclusion of the chairman's address, 8 p.m., the committee invite the members to light refreshments in the rooms of the Chemical Club.

PARTINIUM: A NEW ALUMINIUM ALLOY.—Partinium is used largely by motor-car builders in France in place of aluminium. It is very much cheaper than this metal, is nearly as light, and possesses greater resistive qualities. Partinium is, as a matter of fact, an alloy of aluminium and tungsten, the percentage of each being varied as desired. Cast partinium has a specific gravity of 2·89 ; in the rolled form it is 3 09, the elongation varying from 6 to 8 per cent., while its tractive resistance is given as 32 to 37 kilogrammes per square millimetre. It is interesting to note that the body of M. Jenatzy's well-known record-breaking motor-car, "La Jamais Contente," is constructed of the new alloy, which is being employed for a variety of other purposes by automobile builders on the Continent.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Tar products are firm. There is no change in benzols, prices remaining as last quoted. Carbolic acids are in good request and firm, but there is no quotable change in prices. Solvent naphtha is dearer, and now stands at 1s. 3½d. Crude steady. Creosote is well inquired for, and keeps firm in price. Pitch is moving fairly well at 33s. to 34s. f.o.b. East Coast.

Sulphate of ammonia is still on the downward grade There is not very much doing either for forward or prompt delivery. The nearest prompt values are :—Beckton, £10. 13s. 9d. ; London (outside makes), £10. 17s. 6d. to £11 ; Hull, £10. 16s. 3d. ; and Leith, £10. 16s. 3d. Nitrate dearer.

MISCELLANEOUS CHEMICAL MARKET.

For all products of the alkali trade there is good general demand, and the advance of prices has had no effect in checking sales, either for prompt or forward delivery. In bleaching powder there is a further rise of 5s. per ton, and quotations are now £5. 10s , softwoods, f.o.r. makers' works, and £5 17s. 6d. to £6., hardwoods, f o b. Liverpool. Chlorates are still subject to active competition, and prices are unchanged, nominally at 3½d and 3¾d. for potash and soda, spot delivery. Caustic soda, in all strengths, is active, and prices firm at current quotations, f.o.b. Liverpool, viz , 77%, £9. 10s. ; 74%, £9. 5s. ; 70%, £8. 15s. ; 60%, £7. 15s. per ton. For ammonia alkali there is strong inquiry, and supply is only barely sufficient to keep pace with the orders ; for spot delivery, £4 7s. 6d , bags, is now quoted. Soda crystals and bicarbonate are in good request, but without alteration in values. Sulphur firm at £4. 12s. 6d. f o.r. Sulphate of copper steady at £25. per ton, prompt, and £25 5s. November/December, f.o.b. Salammoniac has been advanced to £40. and £38. per ton for firsts and seconds respectively. Muriate of ammonia is also dearer ; other ammonia salts unchanged. Nitrate of soda, 7s. 7½d. to 7s. 9d. per cwt. White powdered arsenic is moving more freely, and price well maintained at £19. 5s. to £19 10s., f.o.r. Garston, etc. Brown and grey acetates of lime have advanced 10s. per ton, and prices now stand at £5. 12s. 6d. and £8. 10s. per ton respectively, c.i f. Potash, caustic and carbonate, are still very scarce, and higher prices are being paid. Prussiate of potash steady at 7⅞d. per lb. Soda, 5¾d. per lb. Cyanide, 98%, 1s. per lb. Sulphocyanides quiet.

REPORT ON MANURE MATERIAL.

The market continues quiet in all departments, and nothing of particular interest has transpired. Manure manufacturers are busily engaged in preparing stocks for the coming season, and are little disposed to entertain further business in mineral phosphates.. There is nothing doing in River Plate bones. The position of East Indian bone meal is unchanged, £5. 5s. per ton being required, ex store, and sellers

refusing to submit anything under £5. 2s. 6d. per ton for shipment. Nitrate of soda is very firm at 7s. 9d. per cwt. for good, up to 7s. 10½d. per cwt. for refined quality.

THE METAL MARKETS.

LONDON, WEDNESDAY.—Pig iron flat: Scotch warrants closed at 70s. 8d.; Middlesbrough, 69s. 4d. cash; and hematite, 76s. 6d. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s, closed at £74 2s 6d. to £74 7s. 6d. cash; and £74. 7s 6d. to £74 12s 6d. three months. Tin dearer: Straits closed at £142. 17s 6d. to £143 7s. 6d. cash; and £143. to £143 10s. three months; Australian, £144; English ingots, £146. to £147. Lead firm: Spanish, £16 12s. 6d.; English, £16. 15s.; Silesian spelter, ordinary, £21. 15s. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands, £8. 17s. 6d.; second hands, £8. 17s. 0d. *Copper Shares* steady: Cape, 4⅜ to 4¾; Copiapo, 3 11/16 to 3 12/16; Libiola, 1⅝ to 1⅞; Mason & Barry, 3¾ to 4; Rio Tinto, 48 15/16 to 48 16/16; Tharsis, 7⅞ to 8⅛.

GLASGOW, WEDNESDAY.—Market easier, and a small business. Scotch done at 70s. 7d. to 70s. 8d. cash; also at 71s., 70s 11½d., 71s. 0½d, 70s 11d., and 70s. 11½d. month; buyers, 70s. 7½d. cash; sellers, 70s. 8d. Cleveland done at 70s. month; buyers, 69s. 5d. cash; sellers, 69. 7d. Cumberland hematite done at 76s. 8d. and 76s. 6d. cash; also at 76s. 10s. to 76s. 10½d. month; buyers, 76s. 5d. cash; sellers, 76s. 6d.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is moving fairly well, a small amount of business being reported, including soft oils at £23 10s. Olive is very firm, with a fairly good business doing. Linseed is firm, with a rising tendency at 25s. to 25s. 6d. per cwt. for Liverpool makes in export casks. Cottonseed is also firm, Liverpool refined being quoted 19s. 6d. to 20s. per cwt. Fish oils have been moving more freely, but prices have not transpired. Castor oil is steady. with good seconds Calcutta 3½d., and first pressure French 2 15/16d. to 3d. Tallow is variable, but fairly good values are being realised as a whole. Resin is selling satisfactorily at good all round prices. Spirits of turpentine is in moderate demand on spot, with sellers asking 38s. 3d. per cwt. Petroleum fairly steady with American 7⅛d to 8½d., and Russian refined 6⅛d. to 6½d. per gallon.

CAKES.—The high rates now ruling for all descriptions have checked business somewhat, but holders continue firm in their requirements. For American Western Linseed on the spot a further slight advance is wanted, sellers now quoting £7. 7s. 6d. to £7. 12s. 6d., with moderate sales making thereat. River Plate remain without alteration at £7. 10s. to £7. 15s, but Bombay are now quoted at £8. per ton, being rather dearer, and a moderate amount of business is passing thereat. Russian continue quite nominal in value owing to the continued absence of supplies in first hands here. A further improvement of 2s. 6d. to 5s. is asked for Liverpool makes, but transactions reach to a moderately fair extent, and at the close £8. 12s. 6d. to £9. per ton is now the value, according to brand. Good to choice brands of American decorticated cottonseed are in rather quiet request, but the quotation is maintained at £5. 17s. 6d. to £6. 5s., according to quality, whilst for Liverpool makes there is a good consumptive demand experienced, and holders are still quoting £6. 10s. to £6 15s. per ton, according to brand. There is a continued absence of supplies of Egyptian on the spot, and the value is nominally given at £5. In consequence there is an active demand for Liverpool undecorticated makes at recent currencies, home crushers remaining very firm in their ideas at £5. to £5. 10s. per ton, according to brand.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s; Devonshire, 40s to 45s; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10 Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are steady without variation in price; new business is slow in coming in. Soda crystals are quoted at £2. 17s. 6d. per ton, gross weight, locally, Caustic, 70%, £8. 15s., and 76/77%, £9. 10s. per ton. Sulphur, £4. 15s. per ton.

Bleaching powder, softs, £5. 15s. per ton, nett; do., hards, £6. per ton, nett; caustic soda, 76/77%, £9 10s., and 70%, £8. 15s. per ton, nett; recovered sulphur, 2 cwt. bags. £4 15s. per ton, nett; soda ash, 48%, £4 10s. per ton, nett; do, 50%, £4. 12s. 6d per ton, nett; do., 52%, £4 15s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 3s. 9d. per ton, nett; do 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do., 100° Tw., £3. per ton, nett; do., 140° Tw., £3 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3 10s. per ton, nett; blanc fixe, £6 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt steady at 9s. 6d. per ton, f.o.b. Tees.

COALS.—Trade continues active, and prices are firm all round. Gas coals are in strong request, and lowest quotation to-day is 11s. to 11s. 6d. per ton. Coke is very firm at 24s. to 25s. per ton. To-day's quotations are:—Best Northumbrian steam, 11s to 11s. 6d per ton; second qualities, 10s. to 10s. 6d per ton small steam, 7s. to 7s. 6d. per ton; bunker coals, 10s. 3d. to 11s. per ton; gas coals, 11s to 11s. 6d.; coke, scarce, 24s to 25s. per ton.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The market in the common chemicals still fully holds its own, and in the case of caustic soda there has been a further mount of five shillings. Sulphate of copper is very firm again on the market, and the quotation this week touches £25. 15s. for some sellers. Sulphate of ammonia gave way in rather wholesale fashion middle of last week, dropping to £11 for prompt f.o.b. Leith, representing a total shrinkage of £2. per ton since May last. There is no heart at present in the market, and it would surprise no one if the price went lower still Mineral oils and paraffins are all strong, especially the solids, now higher than ever, and affecting substantially the quotations for candles. The associated candlemakers are almost certain to further raise their figures, after the working off of current contracts. Foreign oils (burning) are slightly easier, but the Scotch product holds the old figure well.

Chief prices current are:—Soda crystals, £2 7s. 6d. to £2. 15s., basis, nett Tyne; soda ash, £4. 10s. to £4. 15s., nett Tyne; white alkali, £5. to £5. 7s. 6d. nett, Tyne; alum in lump, £4 5s. to £4 15s. nett, Glasgow; caustic soda, white, 74°, £9 5s.; 70/72°, £8 15s.; 60/62°, £7. 15s., and cream, 60/62° £8., all nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; saltcake, 26s.; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt casks, £6. 15s nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d, less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 7s. 7½d. to 7s. 10½d; sulphate of ammonia, £11. prompt, f.o.b. Leith; salammoniac, first and second white, £35. and £33. nett, any port; sulphate of copper, £25. 10s. to £25. 15s. less 5% Liverpool; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5 10s.; 885°, £6. to £6. 10s. and 890/895°, £6. 15s. to £7. Week's imports of sugar at Greenock were *nil*.

New Companies.

Canadian Sugar Synd., Ltd.—CAPITAL £1,200 in £1. shares This company has been formed to construct and work a sugar factory and refinery in Ontario or elsewhere in Canada. Registered office, 173, St. Vincent-street, Glasgow.

Aurora Rays, Ltd.—CAPITAL £5,000. in £1. shares. This company has been formed to adopt an agreement with G. H. Davies, and to carry on the business of wholesale and retail grocers, blue manufacturers, black lead makers, dry soap manufacturers, chemical manufacturers, distillers, etc.

Worth's Rubber Synd., Ltd.—CAPITAL £50,000. in £1. share (20,000 pref.). This company has been formed to acquire and work an invention by T Worth relating to the manufacture of rubber and rubber goods, and to carry on the business of manufacturers of, and dealers in, india-rubber, gutta percha, vulcanite, leather or any substitute therefor, and all materials, articles, and things in the making whereof india-rubber, gutta percha, or leather is used. The subscribers to the

memorandum of association are:—W. McCall, 6, Cheapside, E.C., merchant; R. Galbraith, Billiter-square Buildings, E.C., shipowner; E. Cattanach, 18-19, Gt. St. Helen's, E.C., merchant; H. C Gillis, Dunstaffaage, Hampstead Heath, physician; C. Tryon, 3, Crosby-square, E.C., solicitor; W. R Hill, Billiter-square Buildings, E.C., shipowner; H. B. Atkinson, 41, Princes-road, Wimbledon, Surrey, clerk.

Gazette Notices.

PARTNERSHIPS DISSOLVED.

G. W. Laughton and F. A Shaw, rubber substitute manufacturers Manchester, under the style of G. W. Laughton & Co.

H. Jones, J. Cort, J. Rutherford, and C. R. Slater, soap and chemical manufacturers, of Blackburn under the style of the Throstle Nest Soap and Chemical Company.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending October 14th.

Acetate of Lime—

Canada,	411 pks	Stein Brs.

Acetone—

Germany,	11 pks	Elkan & Co.
U. States,	10	T. Jones & Co.
Austria,	11	H. G. Brown
,,	16	E. Catlin

Alkali—

France,	5 t. 8 c.	J. Harrison
,,	2 6	Spies Brs. & Co.
,,	2	J. Barber & Co.
Germany,	1	Brasch & Rothenstein

Alum—

Holland,	90 pks.	J White

Barium Sulphate –

Belgium,	237 pks.	J L. Lyon & Co.
,,	510	Leach & Co.

Barytes—

Holland,	38 pks.	J. L. Lyon & Co.
,,	10	J. Owen
,,	57	Wilkinson, Heywood, & Co.
,,	38	J. R Francis & Co.
,,	117	W. Harrison & Co
,,	23	Beck & Pollitzer
Germany,	57	W. Harrison & Co.
Belgium,	67	,,
,,	334	J. L. Lyon & Co.

Basic Slag—

Belgium,	2,01 t	J. W. Cook & Co.

Bismuth Nitrate—

France,	3 pks.	Mory & Co.

Bleaching Powder—

France,	52 pks.	J. M. Steel & Co.

Bone Ash—

Uruguay,	848 t.	H. Knight

Bones—

N. Zealand,	6 t.	Flack, Chandler & Co.

Bromine—

Germany,	203 pks.	A. & M. Zimmermann

Calcium Permanganate—

Germany,	10 pks.	H. Wallace & Co.

Caoutchouc—

France,	5 t.	H. Johnson & Sons
,,	3 10 c.	F. Boehm
,,	1 13	L & I. D. Jt. Co.
Natal,	16	Major & Field
,,	1	Hoare, Wilson, & Co.
,,	14	Brookes & Green
,,	8	J. T. Rennie, Son, & Co.
U. States,	1	G. T. Benton & Son
,,	1	Prop. Bull Wf.
Chinde,	15	L. & I. D. Jt Co.
,,	1	Hale & Son
,,	18	J. Morrison & Co.
E. Indies,	17	W. M. Smith & Sons
,,	2	L. & I. D. Jt. Co.
B. Honduras,	1	Jackson & Till
Madagascar,	1 14	Kleinwort, Sons, & Co.
,,	1 2	Proctor Brs.
,,	1	Prop. Bull Wf.
Germany,	1 4	L. & I. D Jt. Co.
,,	1	Prop. Bull Wf.
Straits,	3	Elkan & Co.
Peru,	1	W M. Smith & Sons

Castor Oil—

France,	10 cs.	Beresford & Co.
,,	40	F. Boehm
,,	45 cks.	Mordaunt Brs.
Italy,	30 cs.	Lucas & Spencer's Wf., Ld.

Caustic Potash—

Germany,	66 pks.	J. M. Steel & Co
France,	8	Burroughs & Co.

Chemicals *(otherwise unascribed)*

Germany,	£27	Pickford & Co.
,,	15	L. & I. D. Jt. Co.
,,	280	H. Harkness
,,	6	T. H. Lee
U. States,	350	B. & F. Wf. Co. Ld.
Denmark,	24	Crosse & Blackwell
Fredrisktad,	140	R. Greening

Coal Products—

Carbolic Acid

Germany,	5 pks.	Hollinghurst & Co.

Pitch

Holland.	33 brls.	D. Smith
N. Russia,	845	Harris Brs.
,,	1,300 cks.	Linck, Moeller, & Co.

Tar

N.Russia,	4 150 brls.	W. F. Malcolm & Co.
,,	400	W. H. Hindley & Co.
,,	250	Elkan & Co.
,,	9,275	Linck, Moeller, & Co.
U. States,	70	Atlantic Transport Co

Colours—

Germany,	8 cks.	O'Hara & Hoar
Holland,	2	,,
Italy,	2 brls.	,,
,,	8 cks.	Wilkinson, Heywood. & Co

Cream of Tartar—

France,	4 pks.	C. Atkins & Nisbet
,,	5	Christophersen & Co.
,,	5	F. C. Devon & Co.
,,	10	W. C. Bacon & Co.
,,	10	B. & F. Wf. Co., Ld.
Portugal,	5	,,
Spain,	5	,,
Holland,	6	Kirkpatrick, Barr, & Co.
Italy,	30	C. Gee & Co.

Dyestuffs—

Aniline

France,	4 pks.	Friend & Co.

Argols

Italy.	729 pks.	B. Jacob & Sons
Austria,	415	,,

Cochineal

Canaries,	20 pks.	W. M. Smith & Sons
,,	34	Swanston & Co.
,,	16	L. & I. D. Jt. Co.

Extracts

Holland,	29 pks.	R J. Bew
U. States,	5	W. Burton & Sons
Denmark,	2	M. D. Co.
Germany,	10	J. Norrenberg & Co.
France,	100	L. J. Levinstein & Sons
Austria,	68	Fellows, Morton & Co.
,,	75	Bailey & Leetham, Ld.
,,	75	Boutcher, Mortimore, & Co.

Gambier

Straits,	503 pks.	Beresford & Co.
,,	503	L. & I. D. Jt. Co.
,,	258	Prop. Hay's Wf.
Belgium,	14	P. & O. Co.

Indigo

Germany,	1 cs.	L. & I. D. Jt. Co.
E. Indies,	7 chts.	,,

Myrabo'ams

E. Indies	2,041 pks.	W. Shelcott & Sons

Orchella

E. Indies,	20 pks.	Lewis & Peat
Zanzibar,	213	L. & I. D. Jt. Co.

Tanners' Bark

Natal,	76 t.	Boutcher, Mortimore, & Co.
,,	46	A. & W. Nesbitt
Belgium,	10	Leach & Co.

Turmeric

E. Indies,	80 pks.	Anderson, Weber, & Smith

Valonia

A. Turkey,	1 t.	Prop. Midd Wf.
,,	204	Adam Brs.

Farina—

U. States	200 pks.	Taylor Brs.
,,	174 cs.	Wingate & Johnston
Germany	3 pks.	L. & I. D. Jt. Co.
Holland,	350	R. Bennett & Co.

Glucose—

France.	243 pks. 243 c.	Trier, Meyer, & Co,
,,	496 345	W. E. Cole
,,	20 20	Page, Son & East
U. States,	1,425 1,525	Deering & Robottom
,,	400 2,462	J. Forsey
,,	4,250 4,250	R. G. Hall & Co.
,,	1,000 1,000	E. Thompson & Co.
,,	600 600	Pearce, Pelly, & Co.

Glue—

Holland,	£59	Netherlands S. B Co.
Germany,	150	O. Schmidt & Co.
,,	60	Craven & Co
,,	140	M. H. Voss
,,	15	Argo S. S. Co.
,,	53	T. H. Lee
U. States,	60	L. & I. D. Jt. Co.
Belgium.	44	Leach & Co,
,,	625	Becker & Wagner
,,	550	G. E. Banes
France,	1,110	Prop. Hay's Wf.
,,	114	Mory & Co
,,	138	T. M. Duche & Sons
Russia,	203	W. R. Gilbert
Austria	516	J. Kitchen Ld.

Glycerine—

France,	£370	H. Hill & Sons
,,	35	J. L. Lyon & Co.

Guano—

Ichaboe Is.,	845 t.	R Bensusan

Gutta Percha—

Straits,	29 t. 14 c.	W. Pope & Co.
,,	10	Prop. Bull Wf.
,,	24 11	Gilman Brs. & Co.
,,	10	Anderson, Weber, & Smith
Holland,	1	,,
,,	6	Phillips & Graves

Horn Piths—

Uraguay,	53 t.	H. Knight

Lead Acetate—

Germany,	31 pks.	F. Boehm
,,	39	T. H Lee

Litharge—

Germany,	16 pks	G. Smith & Son

Manure—

Belgium,	2 t.	T. Ronaldson & Co.
,,	10	Stewart Brs. & Trew
Portugal,	20	L. & I. D. Jt. Co.
E. Indies,	112	A. Hunter & Co.

Methylic Alcohol—

France,	550 g.	Lister & Biggs
,,	2,303	E Catlin
Germany,	2,700	Lister & Biggs
,,	864	W. Izzard
U. States,	900	H. Wallace & Co.
,,	100 brls.	Parker & Co.

Molasses—

U. States,	700 cks. 3,970 c.	J. W. Cook & Co., Ld.
,,	502 2,827	Falkenburg & Hesse
,,	650 3,632	J. Forsey
,,	400 2,220	J. & J. Cunningham

Ochre—

Holland,	25 pks.	Phillipps & Graves
France,	51	Taylor Brs.
,,	20	J. M. Steel & Co.
,,	20	Smiths & Co.
,,	22	Proprs. Hay's & Colin's. Wvs

Oxalic Acid—

Holland,	20 pks.	R. W. Greeff & Co.

Paraffin Wax—

U. States,	500 cs.	Anglo-Am. Oil Co.

Phosphates—

France,	10 t.	Odams' Manure & Chemical Co.
Belgium,	222	D. de Pass & Co.

Potash—

Belgium,	2 t.	J. Harrison
Germany,	36 pks.	T. H Lee
,,	1	R. W. Greeff & Co.
U. States	6 t. 12 c.	S. Ward & Co.
,,	2 15	Sparks White, & Co.

Potassium Carbonate—

Germany,	10 t. 10 c	J. M. Steel & Co.
Canada,	8 14	Charles & Fox
Germany,	18	Petri Brs.

Potassium Chlorate—

Sweden,	25 pks.	G. Boor & Co.

Potassium Oxalate—

Holland,	4 pks.	R. W. Greeff & Co.

Pyrites—

Portugal,	997 t.	Mason & Barry, Ld.

Red Lead—

Holland,	9 pks.	Burrell & Co.
,,	34	D. Storer & Sons
,,	3	Randall Brs.
Germany,	241	Fuerst Brs.
,,	11	J. Barber & Co.
,,	104	Blundell, Spence, & Co., Ld.

Salicylic Acid—

Germany,	45 pks	T. H. Lee

Saltpetre—

Germany	60 bgs	P. Hecker & Co.
———	60 cks.	,,
E. Indies,	2,055 bgs.	Perkins & Homer

Soda—

Belgium,	30 t.	Dicketts & Co.

Soda Crystals—

Belgium,	16 t. 2 c.	———

Sodium Bicarbonate—

Austria,	11 t. 4 c.	J. Norrenberg & Co.

Sodium Bichromate—

Germany,	52 pks.	C. Tennant, Sons & Co.

Sodium Hyposulphite—

Germany,	7 t. 4 c.	H. Lambert

Starch—

Belgium,	520 pks	T. Ronaldson & Co.
,,	80	Sawer, Sons, & Co.
,,	142	Leach & Co.
Holland,	685	Little & Johnston
,,	100	J. R. Francis & Co.
,,	70	G. S. N. Co.
,,	40	Pearce, Duff & Co.
France,	20	Swanston & Co.
,,	16	L. & I. D. Jt. Co.
Germany,	100	Argo S. S. Co.
,,	2,500	Horne & Co.
,,	659	T. H Lee
,,	470 cs.	E. & T. Pink

Stearine—

France,	320 bgs.	G. Boor & Co.
,,	55	W. E. Cole
,,	55 cks.	H. Hill & Sons
Belgium,	5	,,
,,	63 bgs.	,,
,,	427 cks.	J. W. Baker
Germany,	2	T. Palmer
Holland,	6 cs,	Netherlands S. B. Co,
,,	38 bls.	J. Owen

Sulphur—

Italy,	4 t.	H. Johnson & Sons

Superphosphates—

Holland,	1 t.	J. Owen

Tallow—

Belgium,	215 cks.	Beresford & Co.
N. Zealand,	35	J. Greig
,,	375	Phillipps & Graves
,,	52	N. M. & A. Co.
,,	30	Mordaunt Brs.
,,	18	Brown & Elmslie
,,	79	H. Hill & Sons
,,	90	N. Z. L. & M. A. Co.
,,	37	L. & I. D. Jt. Co.
,,	22	Lucas & Spencer's Wf.
,,	22	Culverwell, Brooks, & Co.
,,	200	J. W. Cook & Co., Ld.
,,	277	J. Graves

,, 32 Flack, Chandler, & Co.
,, 393 Col. Consignment Co.
,, 18 Deering & Robottom
,, 185 Beresford & Co.
,, 445 Goad, Rigg. & Co.
U. States, 595 Cuthbert & Hall
,, 500 Price's Pat. Candle Co.
,, 67 B. Jacob & Sons
Argentine, 300 Phillipps & Graves
Qu'nsland, 270 ,,
,, 201 Anning & Cobb
,, 270 Bessler, Waechter, & Co.
Germany, 10 Beresford & Co.
France, 67 bgs. Burnett Brs. & Sons

Tartar—
Italy, 291 pks. B. Jacob & Sons

Tartaric Acid—
Holland, 20 pks. Kirkpatrick, Barr, & Co.
Italy, 19 B. & F. Wf. Co., Ld.

Ultramarine—
Holland, 9 pks. J. Barber & Co.
,, 20 G S N. Co.
Germany, 20 Steinhoff, Sons, & Co.
Belgium, 10 J. Harrison

Varnish—
Belgium, 4 pks. Wilson & Co.
U. States, 12 Anglo-American Oil Co.

White Lead—
Belgium, 23 pks. Leach & Co.
,, 21 Fleming's Oil & Chemical Co.
,, 34 J. L. Lyon & Co.
,, 126 T. & W. Farmiloe, Ld.
,, 23 J. R. Francis & Co.
Holland, 18 ,,
,, 64 T. & W. Farmiloe, Ld.
,, 51 Randall Brs.
,, 73 Burrell & Co.
Austria, 10 Gruscurth & Luboldt
,, 24 W. Adolph & Co.
Germany, 6 Taylor Brs.
,, 24 Burrell & Co.
Norway, 10 R. W. Greeff & Co.

Wolfram Ore—
Sydney, 2 t. Major & Field
Queensland, 30 ,,
,, 2 H Bath & Son

Wood Pulp—
Sweden, 868 pks. Erith & Dartford Light. Co.
,, 160 W.G Taylor & Co.
U. States, 500 ,,
Norway, 125 John en & Jorgensen
,, 800 W. E. Bott & Co.
,, 22 W. D. Cork
,, 80 J. Sharp
Holland, 50 A E. Reed & Co.
Belgium, 2,250 E. Lloyd, Ld.
,, 2,060 J. Harrison

Zinc Oxide—
U. States, 300 pks. M. Ashby, Ld.
Holland, 144 ,,
,, 50 J. Matton

Zinc Sulphate –
Germany, 50 pks. Burgoyne & Co.
,, 17 H. Wallace & Co

Zinc White—
Holland, 50 pks. Burrell & Co.
,, 19 Blundell, Spence, & Co.
,, 46 A. & M. Zimmermann
France, 17 Perkins & Homer
Germany, 8 M. Ashby, Ld.
,, 45 H. Lambert

LIVERPOOL.

Week ending October 12th.

Ammonia—
Antwerp, 3 dms. J. T. Fletcher & Co.

Barytes—
Antwerp, 118 cks
,, { 2 / 520 bgs.
Rotterdam, 20 bls.

Bone Ash—
Campana, 193 bgs.

Bones—
Alexandria, 986 bgs.
Rio de Janeiro, 3 Williamson Milligan
Zarate, 30 J. Nelson & Sons

Borax—
Valparaiso, 4,608 sks.
,, 2,299 bgs. Kleinwort, Sons, & Co.

Caoutchouc—
Havre, 2 cs. Cunard S.S. Co.

Castor Oil—
Leghorn, 31 cs.
,, 100 Brown Brs. & Co.
Marseilles, { 52 / 127 brls.

Chemicals *(otherwise undescribed)*
Antwerp, 4 cks.
Hamburg, 5 cs.

Colours—
Rotterdam, 2 cks.

Cottonseed Oil—
New York, 25 brls.

Cream of Tartar –
Barcelona, 100 bgs.
Bordeaux, 18 cks.
Tarragona, 10

Disinfectants—
New York, 1 cs. M. A. Cregh

Dried Blood—
Alexandria, 93 bgs.
Constantinople, 222

Dyestuffs—
Cochineal
Gd. Canary, 9 bgs. G. S. Bruce
,, 9 Kolp. Kullinseaim
Cutch
Singapore, 650 bxs.
Rangoon, 7 032
Philadelphia, 256
Marseilles, 251 cks.
Extract
Fiume, 544 brls.
New York, 150 McArthur & Co.
Rouen, 150 cks. Co-op. W'sale Society, Ld.
Nantes, 650 R. J. Francis & Co.
St. Nazaire, 260
Havre, 10 Cunard S.S Co.
Rotterdam, 130
Amsterdam, 40 pks
Fustic
Kingston, 957 ps.
Trieste, 10 t.
Quebracho Extract
B. Ayres, 500 bgs.
Sumac
Barcelona, 100 bgs.
Valonia
Smyrna, 5 bgs.

Farina—
Fiume, 200 bgs.

Gelatine—
Hamburg, 5 pks.

Glucose—
New York, 500 brls.

Glue—
New York, 5 brls.
Rouen, 24 cks. Co-op W'sale Society Ld.
St. Nazaire, 9
Rotterdam, { 4 / 120 bgs.

Glue Stock—
Philadelphia, 2 bls.

Guano—
New York, 11 pks. H. Kendall & Sons

Iodine –
Valparaiso, 26 brls A. Gibbs
6 kgs. & Sons

Lead Acetate—
Hamburg, 6 cks.

Limestone—
Antwerp, 1 ck. J. T. Fletcher & Co.

Litharge—
Hamburg, 3 cks.

Logwood—
Belize, 451 t. Gongales, Byass, & Co.

Mineral White—
Trieste, 500 bgs.

Ochre—
Alicante, 100 bgs.
Marseilles, 94 cks.
Rouen, 40 R. J. Francis & Co.
,, 42 brls. Co-op W'sale Society, Ld.

Paint—
Boston, 1 ck. Musson & Co.
, { 17 bxs. / 7 pks.
Genoa, 43 brls. Hozeapfels
Hamburg, 2 cks

Paraffin Wax—
New York, 1,400 brls. Thompson & Bedford
,, 355 Anglo-Am. Oil Co,
,, 600
Rangoon, 80 bgs.

Phosphates—
Antwerp, 999 bgs.
Norfolk, Va., 997 650 t.
Dunkirk, 100

Potash—
Antwerp, 6 cks.
Dunkirk, 16 dms.

Pyrites—
Huelva, 4,708 t. Matheson & Co.

Red Lead—
Rotterdam, 39 cks.

Rosin—
B. Ayres, 6 bgs.

Salicylic Acid—
Hamburg, 1 ck.

Saltpetre—
Hamburg, { 4 cks. / 50 kgs.

Soap—
Leghorn, 3 cs.
Marseilles, 3 G. G. Mackay
,, 557
Rotterdam, 20
New York, 2,500 bxs.
Newport News, 167 pks.
Hamburg, 93 cs.
Boston, 1 Lever Brs., Ld.

Soap Lyes—
Marseilles, 20 dms.
,, 28 cks.
Barcelona, 32 dms.

Soda—
Catania, 27 bgs.
Fiume, 48 cks.

Sodium Bicarbonate—
Hamburg, 8 cks.

Starch—
Antwerp, 80 cs J. T. Fletcher & Co.
,, 381 pks.

Stearine—
Antwerp, 26 bgs.
Rouen, 78 Co-op. W'sale Society, Ld.

Sulphur—
Catania, { 52 cks, 100 cs. / 36 brls. / 410 bgs. / 975 cntrs.

Tallow—
Boston, 100 tcs
Campana, 562 cks.
Zarate, 162 pps. J. Nelson & Sons

Talc—
Barcelona, 100 bgs. R. Steinmann & Co.

Tartaric Acid—
Marseilles, 27 bls.
Messina, 4 cks.

Ultramarine—
Rotterdam, 5 cks.

Washing Powder—
New York, 200 cs.

Waste Salt—
Hamburg, 600 bgs.

White Lead—
Antwerp, 11 cks.
Rotterdam, 36

Wood Pulp—
Boston, 52 cs. Lever Brs., Ld.
Hamburg, 450 bls.

Zinc Oxide –
New York, 160 brls.

Zinc White—
Rotterdam, 7 cks.

MANCHESTER.

Week ending October 14th.

Caustic Lye—
Hamburg, 20 cks.

Coal Products—
Pitch
Hamburg, 26 cks.

Colours—
Ghent, 6 cs.
Hamburg, 2 cks. 1
Rotterdam, { 293 50 25 pks. / 102 brls. / 19 bxs. Wilson, Sons, & Co., Ld.

Cottonseed Oil—
New York, 200 brls.

Dextrine—
New York, 100 bgs.

Dyestuffs—
Extract
New York, 1 kg. 85 brls.

Farina—
Hamburg, 120 bgs.
Rotterdam, 278

Glucose—
New York, 100 brls.

Glue—
Antwerp, 8 bls.
Hamburg, 55 bgs.
Rotterdam, 184 pks. Wilson, Sons, & Co., Ld.

Glycerine –
Rotterdam, 2 dms. Wilson, Sons, & Co., Ld.

Lead Acetate—
Hamburg, 15 cks.
Rotterdam, 18

Limestone—
Antwerp, 4 cs. J. T. Fletcher & Co.
,, 9 crts. 3

Lithopone—
Hamburg, 40 cks.

Paraffin Wax—
New York, 633 brls.

Potash—
Hamburg, { 20 kgs. 20 dms. / 10 brls. / 28 cks.

Potash Lye—
Hamburg, 25 dms.

Potassium Permanganate—
Hamburg, 10 cks.

Potassium Prussiate—
Hamburg, 36 cks.

Salammoniac—
Antwerp, 4 cks.

Sodium Acetate—
Antwerp, 20 dms.

Sodium Aluminate—
Hamburg, 1 ck.

Starch—
Antwerp, 310 cs.
Hamburg, { 200 bgs. / 440
New York, 9,275
Rotterdam, 261 Wilson, Sons, & Co., Ld.

Tallow—
New York, 15 hds.

Tannic Acid—
Hamburg, 1 ck, 3 cs.

Tannin—
Hamburg, 4 cks.

Tartar Emetic—
Hamburg, 13 cks.

Tartaric Acid—
Rotterdam, 20 kgs. Wilson, 20 pks. Sons, & Co., Ld.

Ultramarine—
Hamburg, 4 cks.

Wood Pulp—
Christiania, 1,786 bls. W. H. Ingram
,, 1,905
Drammen, 20 ,,
Quebec, 4,613 8 bdls.
Skein, 1,384
Stockholm, 4,160

HULL.

Week ending October 14th.

Antimony–
Dunkirk, 3 cks. Wilson, Sons & Co., Ld.

Asbestos –
Helsingfors, 300 sks.

Barytes—
Amsterdam, 69 cks. Hull & Netherlands S. S. Co.
Antwerp, 143 H. F. Pudsey
Bremen, 12 Veltmann & Co.
,, 19 G. Holmes & Co.
,, 29 Sissons Brs. & Co.
Rotterdam, 20 Hull & Netherlands S S Co.

Caustic Potash–
Bremen, 8 cks. Veltmann & Co.

Chemicals *(otherwise undescribed)*
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Chromium Fluoride—
Rotterdam, 10 cs. Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 13 brls. Hull & Netherlands S. S. Co.
98 pks.
Aniline
Rotterdam, 146 pks. Hull & Netherlands S. S. Co.
Aniline Colours
Konigsberg, 1 cs. Wilson, Sons, & Co., Ld.
Pitch
Archangel, 500 brls.
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.
Stettin, 3 brls.
Tar
Archangel, 1,244 brls.
Colours—
Amsterdam, 9 cks. Hull & Netherlands S. S. Co.
Antwerp, 492 pks. Bailey & Leetham, Ld.
" 6 cks. Storry, Witty, & Co.
" 6 Storry, Smithson, & Co.
" 4 Wilson, Sons, & Co., Ld.
Bremen, 5 J. Pyefinch & Co.
" 3 cs.
Hamburg, 63 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 2 Hull & Netherlands S. S. Co.
152 pks.
Cream of Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.
Dyestuffs—
Extract
Dunkirk, 9 cks. Wilson, Sons, & Co., Ld.
Rouen, 29 "
Farina—
Harlingen, 300 bls. Hull & Netherlands S. S. Co.
Stettin, 600 bgs.
Gelatine—
Rotterdam, 2 cs. Hull & Netherlands S. S. Co.
Glue—
Hamburg, 120 bgs.
" 20 Bailey & Leetham, Ld.
Rouen, 30 pks.
Glue Stock—
Hamburg, 14 bls.
Rouen, 49 Wilson, Sons, & Co., Ld.
Lactic Acid—
Stockholm, 1 cs. Wilson, Sons, & Co., Ld.
Lead Acetate—
Hamburg, 21 cks.
Manganese—
Rotterdam, 26 cks. Hull & Netherlands S. S. Co.
Potash—
Antwerp, 56 pks. Wilson, Sons, & Co., Ld.
Dunkirk, 37 cks. "
Red Lead—
Amsterdam, 18 cks. Hull & Netherlands S. S. Co.
Saltpetre—
Hamburg, 2 cks. 20 kgs. 27 pks.
Soap—
Gothenburg. 1 cs.
Soda—
Ghent, 200 bgs. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 140 cs. Hull & Netherlands S. S. Co.
Antwerp, 206
Bremen, 2,110 Veltmann & Co.
Ghent, 238 Wilson, Sons, & Co., Ld.
Stearine—
Antwerp, 50 bgs. Wilson, Sons, & Co., Ld.
Christiansund, 46 brls.
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.
Sulphur Ore—
Seville, 780 t.
Tallow—
Dunkirk, 109 cks. Wilson, Sons, & Co., Ld.
Tartar—
Bordeaux, 1 ck.
Tartaric Acid—
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.
Turpentine—
Bordeaux, 26 cks.
Riga. 31 brls.
Ultramarine—
Bremen, 4 cks. Storry, Smithson, & Co.
Rotterdam, 2 Hull & Netherlands S. S. Co.
White Lead
Amsterdam, 9 cks. Hull & Netherlands S. S. Co.
Rotterdam, 66 "
Wood Pulp—
Christiania, 1,282 pks. Wilson, Sons, & Co., Ld.
" 2,020
Drontheim, 160 "
Gothenburg, 234 bls. "
Abo, 662 pks. J. Good & Sons

GLASGOW.

Week ending October 19th.

Antimony Sulphide—
Hamburg, 1 ck.
Asbestos—
Genoa, 26 pks.
Barytes—
Antwerp, 200 bgs. 27 cks.
Rotterdam, 88 cks. J. Rankine & Son
46 pks.
Amsterdam, 54 cks "
Blanc Fixe—
Hamburg, 24 cks.
Castor Oil—
Marseilles, 60 cks. 230 brls.
Chemicals *(otherwise undescribed)*
Amsterdam, 3 cs. J. Rankine & Son
Coal Products—
Alizarine
Rotterdam, 46 cks. J. Rankine & Son
41 brls.
Colours—
Antwerp, 2 cks.
Hamburg, 1
Rotterdam, 131 pks. J. Rankine & Son
" 8 cks. 47 brls. 10 bxs. 4 cs.
Cream of Tartar—
Bordeaux, 8 cks.
Genoa, 17 brls.
Dyestuffs—
Extract
Baltimore, 30 brls.
Marseilles, 70
Indigo
Rotterdam, 6 chts. J. Rankine & Son
Farina—
Delfszyhl, 97 bgs. J. Rankine & Son
Glue—
Antwerp, 10 cks.
Hamburg, 1 bg.
Rotterdam, 20 J. Rankine & Son
Glycerine—
Marseilles, 70 dms.
Gutta Percha—
Hamburg, 17 cks.
Kainit—
Hamburg, 600 bgs. J. Currie & Co.
Magnesite—
Amsterdam, 40 bgs.
Potash—
Hamburg, 39 cks. J. Currie & Co.
25
Pyrites—
Huelva, 1 741 t. Tharsis Sulp. & Copper Co.
Resin—
Baltimore, 300 brls.
Soap—
New York, 50 cs. 2 bxs.
Seville, 270 cs.
Soap Lyes—
Marseilles, 10 dms.
Soda—
Genoa, 30 brls.
Sodium Sulphate—
Antwerp, 21 cks.
Starch—
Antwerp, 280 cs. 20 bgs.
N. York, 125 1,969 sks.
Stearine—
Rotterdam, 18 cks. J. Rankine & Son
Sulphur Chloride—
Rotterdam, 17 balloons
Ultramarine—
Rotterdam, 2 cks. J. Rankine & Son
Varnish—
New York, 47 brls.
Washing Powder—
New York 200 bxs.
Waste Salt—
Hamburg, 120 t. J. Currie & Co.
White Lead—
Rotterdam, 88 cks. J. Rankine & Son
Wood Pulp—
Christiania, 14 cs. 1,400 bls.
Drontheim, 30
Gefle, 2,220 Henderson, Craig, & Co.
Scutskar, 696 "
Zinc Oxide—
Hamburg, 60 cks. J. Currie & Co.
Zinc White—
Rotterdam, 85 cks. J. Rankine & Son
35 pks.

TYNE.

Week ending October 14th.

Bark—
Antwerp, 562 bgs. Tyne S. S. Co.
Barytes—
Antwerp, 401 bgs. Tyne S. S. Co
Hamburg, 20 cks. "
Rotterdam, 100 bgs. "
Glue—
Rotterdam, 10 bgs. Tyne S. S. Co.
Graphite—
Antwerp, 15 bgs. Tyne S. S. Co.
Limestone—
Antwerp, 12 cs. Tyne S. S. Co.
Saltpetre—
Hamburg, 20 cks. Tyne S. S. Co.
Soap—
Hamburg, 1 cs. Tyne S. S. Co.
Starch—
Rotterdam, 80 cs. Tyne S. S. Co.
Sulphide Ore—
Pt. Piræus, 3 340 t.
White Lead—
Antwerp, 12 cks. Tyne S. S. Co.
Tin Oxide—
Antwerp, 10 bdls. Tyne S. S. Co.
New York, 100 brls. Fu[illegible]ness, Withy, [illegible] Co.
Zinc Sulphide—
Hamburg, 24 cks. Tyne S. S. Co.

GOOLE.

Week ending October 11th.

Alkali—
Hamburg, 22 cks.
Antimony Sulphide—
Boulogne, 11 cks.
Bark—
Antwerp, 205 bgs.
Barytes—
Antwerp, 220 bgs.
Caoutchouc—
Boulogne, 1 ck. 1 bg.
Chemicals *(otherwise undescribed)*
Hamburg, 5 cks. 5 cs.
Rotterdam, 2
Colours—
Amsterdam, 3 cks. 1 cs.
Boulogne, 10 5
Rotterdam, 532 75 3 pks.
Glucose—
Calais, 100 bgs.
Glue—
Antwerp, 9 bs.
Boulogne, 4 cks. 2 bgs.
Hamburg, 29 3 cks.
Logwood—
Belize, 805 t.
Painters' Colours—
Hamburg, 23 cks. 16 cs.
Phosphates—
Ghent, 808 bgs.
Potash—
Dunkirk, 16 dms.
Saltpetre—
Rotterdam, 100 bgs.
Starch—
Amsterdam, 50 bgs.
Ghent, 138 cs.
Tartar—
Dunkirk, 45 bgs.
Waste Salt—
Hamburg, 852 bgs. 480 t.

GRIMSBY.

Week ending October 14th.

Barytes—
Rotterdam, 80 bgs.
Caoutchouc—
Hamburg, 15 cs.
Rotterdam, 2
Chemicals *(otherwise undescribed)*
Hamburg, 4 cks. 2 cs.
Rotterdam, 4
Colours—
Antwerp, 11 cks. 86 pks.
Hamburg, 26 cs. 91
Rotterdam, 3 19
Farina—
Hamburg, 100 bgs.
Glue—
Hamburg, 3 cks.
Salt—
Hamburg, 100 bgs.
Rotterdam, 15 t.
Starch—
Antwerp, 240 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending October 18th.

Acids—
Bangkok, 25 cs. £39
Rio de Janeiro, 21 12
Cape Town, 34 23
Alkali—
New York, 71 t. 16 c. £126
Alexandria, 4 7
Invercargill, 1 8
Ammonia—
B. Ayres, 81 t. 8 cs. £535
Sydney, 40 54
Rangoon, 8 16
Ammonium Carbonate—
Melbourne, 7 c. £12
Hiogo, 3 t. 15 118
St. Petersburg, 14 416
Sydney, 18 cs. 31
Bahia, 3 12
Hamburg, 4 cks. 32
Ammonium Muriate—
Sydney, 6 t. 16 c. £137

Ammonium Sulphate—

Bremen,	40 t.		£500
Antwerp,	55		635
Demerara,	80		936

Basic Slag—

Durban,	50 t.	£112

Bone Ash—

Sydney,	2 t. 8 c.	£68

Boracic Acid—

Yokohama,	2 t. 10 c.	£62

Borax—

Delagoa Bay,	1 t.		£20
Durban,		10 c.	25
Melbourne,		20 brls.	28
Yokohama,	3		48
Wellington,		1 cs.	25
Rotterdam,	4 cks.		17
Brisbane,		20	20
Bombay,		4	11

Carbon Bisulphide—

Hamburg,	9 dms.	£38
Montreal,	20 cs.	20

Caustic Soda—

Adelaide,		4 c.	£7
Bundaberg,		5	6
Durban,	2 t.	13	23
Cape Town,	1	2	20

Chemicals (*otherwise unascribed*)—

Shanghai,		3 cs.		£31
Durban,		2		15
Philadelphia,	2 cks.			39
Kobe,	10			70
R. Gallegos,	33	60	70 pks.	435
Gothenburg,	45			40
Cape Town,			5	30
Marseilles,	5			12
Cologne,	4			33
Pt. Elizabeth,	12			17
Antwerp,	10			17
Fremantle,			13	16
Demerara, 75 cbys.		12		22
Alexandria,	10			20
Madeira,			5	13
Rotterdam,	4	37 kgs.		87
Genoa,		24		202
Toronto,	134			499
Wellington,		6 cs.	41	81
Sydney,		3	50	98
Adelaide,			8	21
E. London,		2		10
Ostend,		4	2	240
Montrea,	90		45	151
Bremen,	40	1		205
Wanganui		2 kgs.		11
Hamburg,	5	13		233

Citric Acid—

Auckland,	2 cs.		£14
B. Ayres,	3 cks.		33
Calcutta,	1		9
Hamburg,	1		35
Genoa,	1 t.		133
Montreal,	10 c		70

Coal Products—

Alizarine

Bombay,	78 cks.	£219
New York,	15	105
Boston,	20	238
Montreal,	17	181

Aniline

Boulogne,	2 pks.	£11
Melbourne,	2 cs.	21

Benzol

Rotterdam,	2 dms.	£10

Carbolic Acid

Cologne,	40 cks.		£205
Cape Town,		2 cs. 40 dms.	24
Rotterdam,	65		130
Montreal,	20		160
Odessa,	50		270
Demarara,	1		5

Coal Tar Dyes

Boulogne,	3 cks.	£15
Boston,	14 pks.	195
Calcutta,	6 cs.	32

Creosote Oil

S. Francisco,	2,970 cks.	£2,450

Naphthaline

Paris,	88 cks.	£140

Pitch

Antwerp,	1,780 t.	£2,130
Montreal,	350 brls.	84
Dunkirk,	315	488
St. Petersburg,	700 bgs.	123
Cleveland, U.S.A.,	400	61
Boston,	300 cks.	165
Lyttelton,	7	—
Malta,	100	30

Pyridine

Cologne,	12 brls.	£120

Tar

Broome, W.A.,	60 cs.		£7
Delagoa Bay,		70 dms	5
Stettin,	100 brls.		45
Pt. Elizabeth,		240	16
E. London,		200	9
Lyttelton,		15	—
Calcutta,	401 rnlts.		349
Odessa,		15	12

Coal Products (*otherwise undes.*)—

Paris,	2 cks.	£15
Durban,	200 pks.	7

Copper Sulphate—

Ghent,	5 t.	8 c.	£121
Brussels,	20		484
Amsterdam,	3	16	82
Paris,	10	1	232

Cream of Tartar—

Cape Town,	5 c.	£19

Disinfectants—

Colombo,	9 cs.		£15
Sydney,	26		70
Pt. Elizabeth,	20 cks.		14
Melbourne,	10	25 rnlts.	68
Durban,	80		28
Cape Town,		370 pks.	125
Auckland,	5		14
Adelaide,	2		10
Penang,		50 dms.	40

Glycerine—

New York,	29 t.	13 c.	£860
Yokohama,	4		173

Manure—

Rotterdam,	30 t.			£270
Cape Town,	666	18 c.		2,893
Jersey,	177			395
Durban	10	4		52
Auckland,	50			160
Bordeaux,	33			264
Adelaide,	204	18		840
Grenada,	3			24
Ghent,	30	5		50

Nitric Acid—

Channel Is	14 cbys.	£28

Oxalic Acid—

Newcastle,	2 t. 11 c.	£74

Oxygen Gas—

Amsterdam,	1 cs.	£14

Pearl Ashes—

Sydney,	1 t. 3 c.	£11

Phosphates—

Genoa,	50 t.	£259

Potassium Chlorate—

B. Ayres,	10 kgs.		£17
Melbourne,	1 t.	8 c.	28

Potassium Cyanide—

Townsville,	4 t.	16 c.		£50
Rockhampton,	1			115
Delagoa Bay,	14			1,529
Fremantle,	10	9 cs.		2 072
Sydney,	3			336
Adelaide,	3			329
Melbourne,	2			19

Potassium Prussiate—

Genoa,	6 cks.		£128
Naples	1		18

Salt Cake—

Ghent,	70 t.	£91

Saltpetre—

Montreal,	10 t.		£200
Amsterdam,		12 c.	17
Santos,	4	9	93
Madeira,		8	10
Rio de Janeiro,	2	5	47
Vigo,	9	6	177

Sheep Dip—

Odessa,		200 cs.		£320
Lyttelton,		300		525
St Julian, Patagonia,		260		325
Antwerp		800		984
Bahia Blanca,		250		156
B. Ayres,	132 t.	2	1,250 cs. 5	721
Rosario,	2	14		54
Singapore,		18		13
Pt. Elizabeth,	4	18		175
Cape Town,			160 dms.	15

Soda Crystals—

Durban,	t.	9 c.	£8

Sodium Nitrate—

Lyttelton,	43 bgs.	£55

Sodium Sulphate—

Ghent,	50 t.	£75

Strychnine—

Adelaide,	12 cs.	£109

Sulphate Lime—

Cape Town,	1 t.	£21

Sulphur—

Philadelphia,	5 t.	15 c.	£183
B. Ayres,	1		13
Madeira,		14	6

Sulphuric Acid—

E. London,		10 cs.	£15
Durban		15	27
Pt. Elizabeth,		40	27
Cape Town,	1 t.	10 c.	13
Madras,	3	5	23

Superphosphates—

Adelaide,	500 t	£1,500
Auckland,	61	207

Tartaric Acid—

Bombay,		3 cs.	£14
Melbourne,		5 c.	27
Fremantle,		8	47
Napier,		3	20

LIVERPOOL.

Week ending October 18 h.

Acetic Acid—

Vera Cruz,	2 t	16 c.	1 q.	£55

Alum—

Penang	2 t.	5 c.	1 q	£11
Syra,		14	3	3

Ammonia—

Las Palmas,	1 t.	£185

Ammonium Carbonate—

Corunna,		8 c.	2 q.	£13

Ammonium Muriate—

Barcelona,	3 t.	7 c.	£71
New York,	15	3	350
San Francisco,	5	2	105

Ammonium Sulphate—

Philadelphia,	20 t			£260
Bilbao,	5			62
Sourabaya,	167	4 c.	3 q.	2,045
Samarang,	16	9		166
Bordeaux.	20	7		239
Tarragona,	15	1		178
Las Palmas,	25	10		297
Valencia,	129	6	3	1,578
Demerara	63	2		754
Teneriffe	13	13	2	161

Basic Slag—

Rangoon,	20 t.	

Bleaching Powder—

Boston,	537 cks.	
Chicago,	40 bxs.	
Johnsonburg,	145	
Leghorn,	30	
Lisbon,	25	
Lowell,	46	
Middleton,	20	
Muncil,	74	
Montreal,	31	
Naples,	25	
Newport News,	107	
New York,	168	50 brls.
Pasages,	9	
Philadelphia,	242	
Rotterdam,	35	
Sydney,	10 cs.	
Tampico,	9	
Tyrone, Pa.,	48	
Vera Cruz,	5	

Boracic Acid—

Brisbane,	1 t.		£25
Montreal,	5	17 c.	176
Melbourne,	2		40

Borax—

Sydney,	1 t.	2 c.	1 q.	£18
Hamburg,	10	2	1	167
Antwerp,	2			34
M. Video,		9	3	8
Vera Cruz, 4 brls.	1	10		39
Piræus.	1	2		16
Havana,	1			16
Brisbane.	1	10		23
Montreal,	18	11		287

Calcium Chloride

M. Video,	5 t.	£9
Genoa,	4	13	10
Montreal,	10	5	23
Sydney,	3		7

Castor Oil—

Demerara,	10 cs.	
Honduras,	6	

Caustic Soda—

Alexandria,	105 dms.	
Alicante,	100	
Antwerp,	87	200 bgs.
Barcelona,	310	95 cks.
Batavia,	40	
Beyrout,	315	
Brantford,	40	
Calcutta.	101	
Carupano,	16	
Chicago,	15	35 bxs. 15 brls.
Copenhagen,	15	
Corunna,	30	
Eten,	50	
Fiume,	60	
Genoa,	59	
Hamburg,	207	
Havana,	60	
Hiogo	200	
Honolulu,	10	
Kobe,	173	
La Guayra,	8	
Leghorn,	144	
Lisbon,	215	
Malaga.	121	
Melbourne,	275	
Montreal,	200	
Naples,	120	
New York,	350	100
Odessa,	109	
Oporto,	15	
Pasages,	100	
Payta.	10	
Pt Natal,	30	
Roubaix,	35	
Sydney,	250	
Tripoli,	18	
Valencia,	12 cks.	
Valparaiso	100	
Vancouver, B.C.,	90	

Chemicals (*otherwise undescribed*)

Smyrna,	5 t.	7 c.	3 q.	£30
Syra,	18	15	1	90
Rangoon,			1 cs.	2
Calcutta,	13	9		27
Odessa,	5	5		156
Trieste.	10			20
Hamburg,	1			29
Philadelphia,	14	14		368
Alexandria,	15	16		43
New York,	15 cks.			155
Stockholm,	2			28
Stettin,	3	1		65
B. Ayres,		2 brls.		7
Larnaca,	1			3
Barcelona,	11	1		123
Naples.	2			16

China Clay—

Boston,	2 220 cks.	
B. Ayres,	80	
Lisbon,	200	
New York	121 t.	300 bgs.
Philadelphia,	200	
Roaring Springs, U.S.A.,	30	

Citric Acid—

Rangoon,		2 cs.	£12
Gibraltar,	1 kg.		
Corunna,		4 c.	37

Coal Products

Aniline Colours

Barcelona,	4 cks.	
Boston.	6 kgs.	27 cs.
Galata.	1	
New York	9 cks.	1

Aniline Oil

Genoa.	16 dms.	

Aniline Salt

Bombay,	9 kgs.	
Genoa,	2 cks	
St. Petersburg,	3	
Syra.	2	

Carbolic Acid

Antwerp,	1 t.			£110
Rotterdam,	13	7 c.	1 q.	438
Odessa,	1	2	3	43
Melbourne,	2	12		63
B. Ayres,		4		13
Lagos,		10 cs.		24
Amsterdam,	5			125

Naphthol

Barcelona,	4 cks.	

Pitch

Colombo,	400 brls.	
Rangoon,	55 cks.	

Pitch Oil

Newport News,	250 brls.	

Tar

Karachi,	30 pks.	
Penang,	199 brls.	
R Nunez,	15	
St. John's, Nfd.	50 kgs	50

Copper Sulphate—

Bari,	25 t.	16 c	2 q.	£598
Christiania,	1	1		24
Bordeaux,	17	12	1	4 6
Stettin,	1	2		10
Konigsberg,	8	16	1	96
Montreal,	9	18		8

Melbourne, 7 10 182
Stockholm, 5 1 119
Mollendo, 1 24
Rotterdam, 10 1 234
Pt. Elizabeth, 10 14
Naples, 5 112
Trieste, 66 5 1,526
Malaga, 20 1 1 461
Ancona, 5 4 2 135
Rouen. 7 5 175
Sourabaya, 1 25

Cresyllic Acid—
Boston, 1 t. 10 c. £18

Disinfectants—
Las Palmas, 15 c. £25

Glycerine—
Rotterdam, 23 t. 16 c. 3 q. £960
Newport News, 50 4 2 1,390
Santander, 15 32
Valparaiso, 3 9
Montreal, 62 2,385
Seville, 1 10 61
Hiogo, 5 2 8
Bombay, 5 8
N. Orleans, 24 15 1,151
Vera Cruz, 1 10 3 64
Barcelona, 3 146
Las Palmas, 5 15 152

Lead Nitrate—
Kingston, 5 t. 5 c. £125

Magnesia—
Barcelona, 40 cs.
Corunna, 1
Montreal, 8 pks
Paris, 108
Rangoon, 1

Magnesium Chloride
Genoa, 7 t. 18 c. £21

Manure—
Demerara, 50 bgs. £50
New York, 3 t. 7

Oxalic Acid—
Barcelona, 13 c. £18
Boston, 5 t. 8 135

Paint—
Akejab, 68 kgs.
Antwerp, 32
Belize, 63
Bombay, 27 dms.
Boston, 5
Calcutta, 20
Cienfuegos, 4 crts.
Demerara, 165 7 cks.
Gibraltar, 45
Guaymas, 7
Hamburg, 11
Iquique, 30
Lagos, 200
Montreal, 3 cs.
Para, 6
Pt. Said, 314
Rangoon, 1,039
Santiago, 6
St. John's, Nfd. 2 frks. 13
Tampico, 4
Valparaiso, 40 dms.

Painters Colours—
Constantinople, 76 kgs. 66 brls.
Corfu, 1
Corunna, 1
Gijon, 1 bx. 4
Karachi, 7 cks.
Lisbon, 2
Louisville, 100
Manaos, 3
Moulmein, 145 5 dms.
M. Video, 74
Montreal 10
Newport News, 310 brls.
Para, 13 25 42 / 3 tcs. 2 cs.
Philadelphia, 140 bgs.
Rangoon, 640 kgs. 10 dms. / 37 pks.
Rondesbosch, 10 cks.
Valencia, 2 1 cs.

Paraffin Wax—
Barcelona, 20 bgs.
Bari, 60
Batoum, 10
New York, 3 cs.
Piræus, 7
Tampico, 50

Phosphorus—
Shanghai. 10 cs. £82

Phosphorus (Amorph.)—
Hiogo, 25 cs. / 2 t. 10 c. £783

Potassium Bicarbonate—
New York, 1 t. 19 c. £54

Potassium Bichromate—
Marseilles, 8 c. £13
Venice, 4 cks. 16 78
Vera Cruz, 2 t. 10 104

Potassium Chlorate—
Hamburg, 6 c. £9
Libau, 10 t. 318
Melbourne, 5 150
New York, 10 3 0
Rotterdam, 10 17
Shanghai, 3 99
Tangiers, 1 30

Potassium Cyanide—
Cuidad Bolivar, 8 c. £47

Potassium Prussiate—
Stockholm, 8 c. 3 q. £33
Vera Cruz, 18 2 68

Salammoniac—
Axim, 6 c. 2 q. £6
C. C. Castle, 8 3 9
Rio de Janeiro, 10 16

Salt—
Abonnema, 10 t.
Antwerp, 57
Baltimore, 295
Bombay, 6
Boston. 457
Brisbane, 25
B. Ayres, 71 50 cs.
Calcutta, 654 2 c.
C. C. Castle, 12 10
Chicago, 65
Christiania, 200
Conakry, 50 4
Hamburg, 50
Hamilton, 50
Lagos, 37 10
Manaos, 12 10
Melbourne, 55
M. Video, 5
Montreal, 972 2
N. Orleans, 255
New York, 65
Old Calabar, 50
Opobo, 125 8
Para, 145
Pembroke, Ont., 14
Philadelphia, 600
Quebec, 285
Rangoon, 10 c.
Rio G. do Sul, 1
Sherbro, W.A., 225
Sierra Leone, 104 10 c
Sinoe, 9 16
Sapeli 5
Stockholm, 10
Sydney, 150
Trinidad, 46 15
Warri, 5

Salt Cake—
Lisbon, 30 t. £49
Philadelphia, 100 4 c. 187

Saltpetre—
Maranham, 19 c. 2 q. £21
Parahyba. 1 t. 12 33
Wellington, 10 11

Sal's of Tin—
Vera Cruz, 10 c. 2 q. £46

Satinite—
Antwerp, 2 t. 5 c. £6

Sheep Dip—
Algoa Bay, 250 dms. £51
B. Ayres, 97 t. 1 c. 2 428
Bahia Blanca, 20 500
Calcutta, 100 pks. 10
M. Video, 5 12 250
Punta Arenas, 2 62

Soap—
Alexandria, 165 bxs. 4 bls.
" 45 cs.
Amboina, 1,000
Antigua, 50
Antwerp, 43
Appam, 102
Axim, 250
Barbadoes, 300
Bissao, 30
Bombay, 710 20
Boston, 51 35
Brussels, 4 526
Calcutta, 30 500 bdls.
Canaria, 438
C. C. Castle, 50
Cape Palmas, 21
Cape Town, 1,050 65
Christiania, 210 6 crts.
Conakry. 50
Constantinople, 5 brls.
Demerara, 1 577
Dominica, 20
E. London, 620 65 cs.
Galata, 20
Gibraltar, 450
Gd. Canary, 150
Habana, 100
Hobart, 400
Karachi, 500 2
Kingston, Ja., 100
Kotonou, 50
Lagos, 274
Las Palmas, 656
Launceston, 400
Madras, 10
Manaos, 1,250
Mandalay, 2
Mannheim, 926
Manta, 50
Mauritius, 200
Melilla, 100
Montserrat, 20
Mossel Bay, 1,030
Montreal, 50 kgs. 2 cks.
New York, 1
Old Calabar, 784 bxs.
Para, 350 1
Penang, 407
Pt. Natal, 452
Rangoon, 25 12
Rotterdam, 50 420
Shanghai, 1,849
Sierra Leone, 12
Singapore, 1,512
St. John's, N'fd. 131
Tangiers, 25
Valparaiso, 38

Soda Ash—
Brisbane, 8 kgs.
Boston, 39 tcs. / 200 bgs. 57 cks.
Brussels, 500
B. Ayres, 58 / 150 brls.
Cadiz, 55
Calcutta, 6
Christiania. 610 22
Delftshaven, 534
Ghent, 200
Lagos, 60 kgs.
Landskrona, 240 bgs.
Leghorn, 100
Lisbon, 11
Malmo, 160
Montreal, 525 26
Newport News, 22
New York 1,220 143 tcs.
Pernambuco, 75
Philadelphia, 1,080 47
Piræus, 150
Rangoon, 10 brls.
Rockhampton, 8
Samos, 70
Santander, 17
Smyrna, 400
St. Stephen N.B., 112
Sydney, 165
Talcahuano, 25
Tampico, 34
Toronto, 100
Valparaiso, 20
Venice, 100 100

Soda Crystals—
Constantinople, 160 brls.
Demerara, 30
Halifax, 25 bgs. 60 / 100 kgs.
Honolulu, 70
Malta, 165
Montreal, 160 500 / 100 bgs. 50 pks.
Quebec, 50 15

Sodium Bicarbonate—
Alexandria, 60 kgs.
Amsterdam, 27
Antwerp, 10 12 cks.
Auckland, 40
Barcelona, 225 30 dms.
Brantford, 230
Brisbane, 60
B. Ayres, 30
Calcutta, 620
Cartagena, 20
Christiania, 20
Corunna. 24 brls.
Demerara, 20
Galatz, 25
Genoa, 78 pks. 13 cks.
Gibraltar, 20 8
Gijon, 8
Hamburg, 100 8 6
Hamilton, 50
Honolulu, 50 20 brls.
Karachi, 40
Konigsberg, 24 pks.
Leghorn, 3
Lisbon, 60
Marseilles, 80
Milan, 100 30
Moscow, 100
M. Video, 50
Montreal, 25 bgs. 300 dm.
New York, 100 kgs.
Odessa, 200 350
Rangoon, 40 6 cks.
Rosario, 14
Rotterdam, 20 12
Smyrna, 50
Sydney, 100
Toronto, 50

Sodium Carbonate—
Boston, 56 brls
Chicago, 75
Montreal, 56
New York, 56

Sodium Chlorate—
Hamburg. 4 cks.

Sodium Silicate—
Singapore, 7 brls.

Starch—
Karachi. 2 bxs.
Pt. Said, 10 cs.
Smyrna, 5

Sulphur—
Boston, 320 t. 5 c. £1,362
Galatz, 1 6
Montreal, 135 2 579
Pernambuco, 5 14 1 q. 39

Sulphur Dioxide—
Para, 1 t. 2 c. 2 q. £65

Sulphuric Acid—
Madras, 1 t. 2 c. £12
Rangoon, 17 3 q. 18

Superphosphates—
Adelaide, 2,275 t. £6,427
Barcelona, 200 550
Huelva, 100 263
Las Palmas, 40 221
La Pallice, 732 4 c. 3 q. 1,940
Valencia, 20 43

Tartaric Acid—
Corunna, 4 c. £23

Varnish—
Barcelona, 8 brls.
Demerara, 10 14 dms.
" 1 cs.
Gijon, 9 cks.
Madras 2
Melbourne, 20
Montreal, 7
Rangoon, 12
Santander, 8

White Lead—
Belize, 24 kgs.
Para, 2 cks.

Zinc Chloride—
Bombay, 4 t. 10 c. £100

MANCHESTER.

Week ending October 18th.

Ammonium Carbonate—
Alexandria, 1 brl.

Calcium Chloride—
Germany. 4 cks.

Chemicals (*otherwise undescribed*)
Alexandria, 1 kg.
Antwerp, 18 / 3 cks. 2 cs.
Beyrout, 11 25 brls.
Jaffa, 21
Rotterdam 30 kgs. / 6 cks.

Coal Products (*otherwise under.*)—
Belgium, 4 kgs
Germany, 29 cks.
Rotterdam, 4 kgs. 1 cs.
St. Petersburg, 40 cks. 12 dms.

Coal Products—
Aniline Colour
Germany, 3 brls.
Aniline Oil
Hamburg, 1 dm.
Aniline Salt
Rotterdam, 10 cks.
Benzol
Sweden, 2 brls.
Carbolic Acid
Germany, 50 cks.
Naphthol
Germany, 1 brl.
Pitch
Germany, 399 t. 5 c.
Hamburg, 14 cks.

Copperas
Alexandria, 100 brls.
Beyrout, 25
Bussorah, 50

Disinfectants—
Bussorah, 3 kgs.

Glue—
Antwerp, 110 cks
Germany. 10

Linseed Oil—
Beyrout, 13 brls.
Jaffa, 10

Oxalic Acid—
Bushire, 2 cs.
Painters' Colours—
Alexandria, 370 brls. 10 cks.
Beyrout, 96 kgs. 2 " 22 cs.
Germany, 7 cks.
Jaffa, 10 2 brls.
Potassium Bichromate—
Bushire, 6 cs.
Salammoniac—
Alexandria, 20 cks. 3 cs.
Bagdad, 30 brls.
Salt—
Montreal, 5,600 sks.
Soap—
Alexandria, 50 bxs.
Ispahan, 1 cs.
Soda Ash—
Callao, 25 cks.
Lattaquie, 50 brls.
Sulphur—
Montreal, 25 brls.
Tallow—
Bombay, 45 brls.
Varnish—
Jaffa, 3 cs.

GLASGOW.

Week ending October 19th.

Ammonium Sulphate—
Malaga, 19 t. 18 c.
Rotterdam, 65 19 1 q.
Bichrome—
Gothenburg, £145
Borax—
Antwerp, £233 10s.
Canada, 83
Chalk—
B. Ayres, £51
Chemicals (*otherwise unenumerated*)
U.S.A., £74
Coal Products—
Benzine
Bayonne, £20
Carbolic Acid
Rotterdam. £200
Creosote Oil
Bayonne, £1,250
Christiania, 13
U.S.A., 60
Naphthaline
Antwerp, £52
Pitch
Antwerp, £248
Bombay, 20
Calcutta, 10
Canada, 20
Gothenburg, 590
Tar
Bombay, £117
Calcutta, 434 10s.
Canada, 120
Christiania, 63
Colombo, 28
Danzig, 60
Hamburg, 25
Tar Oil
Gothenburg, £60
Dyestuffs—
Extract
Canada, £629
Stockholm, 190
Fustic Extract
Canada, £84
Sumach
Bombay, £22
Farina—
Calcutta, 10 t. 1 c.
Gelatine—
Canada, £159 10s.
Lead Acetate—
U.S.A., £150
Linseed Oil—
Canada, 10 t. 7 c.
Cape Town, 4 3 3 q.
Iquique 5 4
Malta, 1 11 3
Logwood—
Canada, 4 t. 6 c. 3 q.
Manure—
Coconada, 5 t. 15 c. 2 q.
Malaga, 100 9 3
Oxalic Acid—
Gothenburg, £30
Paint—
Canada, £50
La Libertad, 48
Painters' Colours—
Alexandria, £40 7s.
Bombay, 63 12
Calcutta, 267
Cape Town, 80
Colombo, 43 10
Cuba, 38 10
Malta, 33
Rotterdam. 3
Transvaal, 51
U.S.A. 4
Valparaiso, 101
Paraffin Wax—
Cape Town, 2 t. 7 c. 3 q.
Fiume, £170
Stockholm, 60
Trieste, 331
Potassium Bichromate—
Boston, 12 t.
Christiania, £11
Madras, 66
Malaga, 3 19 c. 3 q.
Montreal, £250
Rotterdam. 77
Stockholm, 313
Potassium Oxalate—
Stockholm, £12
Potassium Prussiate—
New York, £185 12s.
Rosin—
B. Ayres, £86
Sheep Dip—
Punta Arenas £38
Soap—
Bombay, 7 t. 4 c. 2 q.
Madras, 17
Valparaiso. 2 10
Sodium Bichromate—
Canada, £57
Starch—
Amsterdam, £10
White Lead—
Colombo, £64

HULL.

Week ending October 14th.

Alkali—
Copenhagen, 1 ck.
Ammonium Alkali—
Bergen, 2 bls.
Ammonium Sulphate—
Antwerp, 722 bgs.
Rotterdam, 500
Basic Slag—
Stettin, 2,800 bgs.
Bones—
Stockholm, 2 bgs.
Chemicals (*otherwise unenumerated*)
Alexandria, 100 cks.
Amsterdam, 20
Christiania, 17 5 pks.
Copenhagen, 14
Gothenburg. 8 cs.
Hamburg, 1 155
Helsingfors, 2 3
Rotterdam, 20 68 11
St. Petersburg, 150
Stettin, 8 67
Wyburg, 10
Coal Products—
Creosote
Stockholm, 5 cks.
Pitch
Antwerp, 210 t.
Hamburg, 1 cs
Tar
Amsterdam, 6 cks.
Christiania, 3
Copenhagen, 1
Hamburg, 2
Helsingfors, 6
Rotterdam, 10 8 pks.
Stettin, 5
Cottonseed Oil—
Amsterdam, 13 t. 12 c.
Antwerp, 2 8
Bremen, 7
Constantinople, 5 3
Copenhagen, 24 12
Dunkirk, 29 18
Ghent, 13
Gothenburg, 4 19
Hamburg, 2 7
Rotterdam, 36 13
Stavanger, 3 3
Stockholm, 5
Dyestuffs (*otherwise undescribed*)
Stettin. 60 bgs.
Ferro Manganese—
Dunkirk, 14 c.
Linseed Oil—
Alexandria, 3 t. 12 c
Antwerp, 2 13
Christiania, 12 9
Copenhagen, 17
Drontheim, 5 13
Gothenburg, 12
Hamburg 8 16
Manure—
Dunkirk, 415 bgs.
Mineral White—
Copenhagen, 6 bgs.
Paint—
Antwerp, 3 cks.
Bergen, 20
Painters' Colours—
Antwerp, 13 cks. 1 cs. 125 pks.
Bremen. 24 dms.
Christiania, 15
Copenhagen, 2
Ghent, 9
Hamburg, 3 16
Harlingen, 9
Helsingfors, 17
New York, 110
Odessa. 550
Rotterdam, 5 1
St. Petersburg, 7
Stettin. 8 2
Stockholm, 6 1
Starch—
Odessa, 800 cs.
Tallow—
Helsingfors, 10 cks.
Varnish—
Hamburg, 1 cs.
Norrkoping, 2 cks.
Waste Salt—
Amsterdam, 20 brls.

TYNE.

Week ending October 14th.

Alkali—
Piræus, 14 c.
Rotterdam, 1 t. 13 2 q.
Alum Waste—
Copenhagen, 4 t. 8 c. 3 q.
Horsens, 12 6 1
Ammonium Carbonate—
Copenhagen, 19 c. 2 q.
Hamburg, 19 2
Antimony—
Antwerp, 1 t.
Gothenburg, 1
Hamburg, 4
Rotterdam, 7 16 c.
Asbestos—
Bergen, 24 lbs.
Barium Binoxide—
Hamburg. 10 t. 17 c.
Barium Carbonate—
Hamburg, 150 t.
Black Ore—
Piræus, 2 t. 4 c.
Bleaching Powder—
Antwerp, 6 t. 17 c.
Bergen, 10 2
Christiania, 14 18
Copenhagen, 5 2 1 q.
Gothenburg, 20 4
Hamburg, 34 13 2
Rotterdam, 20 17 3
Valparaiso, 13 18 2
Bones—
Dunkirk, 13 t. 13 c. 2 q.
Caustic Soda—
Aalborg, 4 t. 10 c.
Antwerp, 4 18 2 q.
Christiania, 5 16
Copenhagen, 6 7 2
Gothenburg, 2,011 18 1
Hamburg, 30 3
Helsingfors, 5 18 3
Pernau, 21 5
Seville, 10 1 3
Chalk—
Christiania, 7 c.
Chemicals (*otherwise undescribed*)
Piræus, 6 t. 5 c.
Coal Products—
Carbolic Acid
Rotterdam, 8 c. 1 q.
Colours—
Piræus, 13 c. 1 q.
Copperas—
Helsingfors, 1 t. 6 c.
Fluor Spar—
Gothenburg, 104 t. 7 c.
Iron Oxide—
Piræus, 7 t. 19 c. 1 q.
Lamp Black—
Christiania, 11 c.
Litharge—
Christiania, 5 c. 3 q.
Gothenburg, 1 t. 9 1
Magnesia—
Antwerp. 1 c.
Hamburg, 3 2 q.
Piræus, 1 2
Magnesium Carbonate—
Helsingfors, 13 c. 2 q.
Paint—
Antwerp, 5 t.
Bergen, 10 c.
Christiania, 11 2 q.
Hamburg, 3
Painters' Colours—
Hamburg, 3 dms.
Piræus, 4 t.
Red Lead—
Bergen, 2 t. 14 c. 3 q.
Christiania, 7 12 2
Copenhagen, 7 19 2
Gothenburg, 1 17 2
Hamburg, 5 1
Rosin—
Piræus, 6 t. 10 c. 3 q.
Salammoniac—
Gothenburg, 1 t. 2 c. 1 q.
Salt—
Piræus, 6 c.
Soda—
Bergen, 1 t. 11 c. 1 q.
Christiania, 7 7
Piræus, 1 1
Rotterdam. 10
Soda Ash—
Bergen, 10 t.
Helsingfors, 69 3 q.
Sodium Hyposulphite—
Christiania, 19 c. 2 q.
Sodium Sulphate—
Gothenburg, 50 t.
Sulphur—
Gothenburg, 60 t.
White Lead—
Copenhagen, 19 c 1 q.

GOOLE.

Week ending October 11th.

Chemicals (*otherwise unenumerated*)
Boulogne, 8 cks.
Hamburg, 67 6 dms.
Rotterdam, 20 26
Coal Products (*otherwise unes.*)—
Amsterdam, 37 cks.
Antwerp, 7
Boulogne, 77 2 cs.
Hamburg, 19
Rotterdam, 14 2
Coal Products—
Pitch
Antwerp. 397 t.
Dyestuffs (*otherwise undescribed*)
Hamburg, 1 ck.
Manure—
Antwerp, 502 bgs.
Ghent, 56
Painters' Colours—
Amsterdam, 6 cks.
Boulogne, 2 cs. 6 pks.
Ghent, 3
Rotterdam, 8

GRIMSBY.

Week ending October 14th.

Alkali—
Antwerp, 3 cs.
Dieppe, 4 kgs.
Caoutchouc—
Esbjerg, 1 ble.
Chemicals (*otherwise undescribed*)
Dieppe, 1 ck.
Gothenburg, 1
Coal Products (*otherwise undes.*)—
Dieppe, 117 cks. 15 pks.
Hamburg, 8 84 cs.
Colours—
Malmo, 14 cks.
Painters' Colours—
Antwerp, 3 pks.
Hamburg, 1 ck.

PRICES CURRENT.

WEDNESDAY, Oct. 25, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	5/9 & 8/3		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	23	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-		
,, Nitrate .. .. per ton	33	0	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	11	0	0
,, ,, (grey) Hull .. .. ,,	10	16	3
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	5	10	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	9
,, 50/90 ,, ... ,,	0	3	10¾
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	12	0
Solvent Naphths, 90% at 160° .. .. .. per gallon	0	1	3½
Copper .. .. per ton	74	0	0
,, Sulphate .. .. ,,	25	0	0
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	32	10	0
,, (distilled S.G. 1260°) .. .. ,,	50	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	17	15	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	23	0	0
,, ,, (brown ,,) .. .. ,,	19	0	0
,, Carbonate (white lead) pure .. .. .. ,,	23	5	0
,, Nitrate .. .. ,,	22	0	0

	£	s.	d.
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	12	6
,, ,, (grey) (ex ship) .. .. ,,	8	10	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	19	10	0
Linseed .. .. ,,	25	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	17	0	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % .. .. per ton	23	15	0
,, ,, ,, 75/80 % .. ,,	19	15	0
,, Potash Hydrate Liquid 50 % .. .. ,,	13	0	0
,, Nitrate (refined) .. .. ,,	20	10	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	7⅞
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	8	15	0
Silver (metal) .. .. per oz.	0	2	2⅝
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	7	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	15	0
,, Acetate (ex-ship) .. .. ,,	13	15	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	10	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	5	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	15	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	7	15	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	9
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	5	0
,, Prussiate .. .. per lb.	0	0	5⅝
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	6	0
,, ,, (Glauber's Salts) .. .. .. ,,	1	12	6
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4¼
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	28	0	0
Tin Crystals .. .. per lb.	0	0	10½
,, English Ingots .. .. per ton	147	0	0
Zinc (Spelter) .. .. ,,	21	15	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

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AND

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WHEELS WITHIN WHEELS.

TO impute motives is not the most enjoyable of tasks, save to those whose tastes are most emphatically of the Machiavelian order, but to discover them is frequently very disappointing, particularly when the discovery reveals the true inwardness of things.

During the recent fight over the raising of the flash-point of burning oil to a safe temperature, a section of the Press, which claims to be technically and scientifically efficient to judge the merits and demerits of such a question, took up the cudgels on behalf of low-flash oil, and continued to favour the arguments of the low-flash party, although the endeavour to do so often involved the adoption of unscientific and not infrequently illogical statements.

This section of the Press represented the gas industry, but the fact hardly afforded an explanation, because the injury that would have resulted to this industry if the dangers attending the use of low-flash oil as an illuminant had been lessened would have been infinitesimal, and certainly not worth the sacrifice of one's claims to able scientific criticism. The position was to us unintelligible—till last week, when we saw the report of a certain association which has taken upon itself the care of the gas industry.

We have heard of the Gas Companies' Protection Association on two occasions only, and we believe it has been in existence as many years. How representative it is may be gathered from the membership-roll, which totals 67 out of the many hundreds of gas works that ought to be pining for protection, but apparently manage to thrive "on their own."

This Association claims to have achieved three things during the past year, it has opposed two Bills of the National Telephone Company concerning the taking up of streets which affected the rights of gas companies. This seems a legitimate and commendable action. The third achievement has been to successfully oppose the Petroleum Bill for raising the flash point of oil.

This reads as if the fate of that Bill had been settled by this Association. It was a factor in the influence exerted by the American oil magnates, but about as important a factor as Beethoven's finger-nails were in the composition of his symphonies.

Just twelve months ago we referred to the possibility of a protection association proving beneficial, but as its energies are evidently utilised indiscriminately in destroying chimerical dangers that cannot materially affect the gas industry, to the exclusion of very real dangers that have imperilled the public safety with most fatal results, we must unreservedly withdraw all previous approval and await further developments.

Even now we are at a loss to understand why it was necessary to go to the length of actively opposing this Bill. The largest importers of low-flash oil do certainly advertise in the gas journals their gas oil, which is now largely used in the

manufacture of gas, but the price of this would not have been sufficiently affected by the Petroleum Bill—if affected at all—to warrant this Association renouncing its claims to impartial judgment, the appreciation of scientific facts, and the ability to gauge the relative importance of limited personal interests and the public welfare.

The gas industry would have done well to have encouraged the suppression of burning oils which flash at a dangerously low temperature, because having shown itself on the side of progression and safety it could have gone a step further and justly emphasised the even greater superiority of gas as an illuminant and heating agent.

But now that this Gas Companies' Protection Association has openly ranked itself with those who place personal gain before the suppression of a serious public danger, and half boasts of having menaced the safety of the public by actively fostering the extended sale of explosive illuminating oil—who, we ask, will, in the face of this, give credence to any statements extolling the advantages of gas that emanate from such a source? They are discredited at once by the records of the past.

Possibly it is such incomprehensible policies that account for the astonishing membership which the Association enjoys.

THE TREATMENT OF MANCHESTER SEWAGE.

WORK OF THE PAST YEAR.

THE annual report of the Rivers Committee, which bears the signature of Sir Bosdin T. Leech, chairman of the Committee, and of Mr. Gilbert J. Fowler, the superintendent and chemist, contains the following statements with regard to the year's work:—The volume of sewage delivered and treated from January, 1898, to March, 1899, was 11,210,019,000 gallons. The estimated population of the city contributing to the sewerage system has increased from 512,500 on January 1st, 1898, to 519,910 on March 31st, 1899, being an increase of ·66 per cent. In October, 1898, the 1,636 acres of Stretford were finally coupled up to the Manchester sewerage system, contributing sewage from an estimated population of 19,500. In June, 1898, the 77 acres of Audenshaw (as per agreement) were coupled up to the Manchester sewerage system, contributing sewage from an estimated population of 350. The daily average flow of sewage recorded at the works during the past 15 months was 25,191,053 gallons, that for 1897 being 20,426,363 gallons, showing an increase at the rate of 4,764,690 gallons per day, or 23·3 per cent. The average daily flow of sewage treated per head has ranged from a minimum of 38·10 gallons per head for the month ended January 26th, 1898, to 66·90 gallons per head for the month ended January 25th, 1899. The proportion of

CHEMICALS USED

during the year was less than in the preceding year. The average quantity of precipitant used, however, gives but little idea of the actual quantities added at any given time. For instance, during a flush of acid waste the consumption of lime may be as high as 18·5 grains per gallon; if dye waste is present in the sewage, both lime and copperas will have to be greatly increased. On the other hand, during flushes of storm water it is customary to stop treatment altogether, as experience has shown that addition of chemicals under such circumstances effects little if any purification in addition to what is due to the ordinary sedimentation in the tanks. During 1898 treatment was stopped on account of storm water on 40 occasions, the total number of hours being 192. During the quarter ending March 29th, 1899, treatment was stopped on account of storm water on 18 occasions, the total number of hours being 35. On no occasion has it been necessary to open the storm-overflow gate, as it has been possible, owing to the construction of a tumbling bay at the far end of the effluent carrier, to pass a much greater volume through the tanks, the water finding an exit through the surface effluent carrier and the culvert beneath. The amount of wet sludge produced from December 29th, 1897, to March 29th, 1899, was 242,000 tons. This was taken out to sea by the steamer Joseph Thompson in 242 journeys. From three to five journeys per week were made, according to circumstances, the average number, however, being four journeys per week. The sludge tanks have been found capable of discharging their contents by gravity into the steamer as a rule in about 55 minutes, being about 20 minutes less than the estimate of the City Surveyor before the construction of the works.

LAND FILTRATION.

Land Bed No 1, comprising an area of 13 acres, situated between the precipitation tanks and the small carrier which crosses the land, started working December 30, 1897, and was kept flooded with effluent from the main carrier to an average depth of 15 inches. The penstocks were kept open eight hours a day, Sundays and about a fortnight when repairs were made excepted. Nearly two million gallons of effluent were estimated to pass through the land in 24 hours. Owing to clogging, the amount passed through the land gradually diminished, and towards the end March, 1898, only a little over one million gallons passed during the 24 hours. This diminished to about half a million gallons on May 30, but with the advent of warm weather an increase took place, and about 700,000 gallons passed through the land daily. After July 25, the effluent was allowed to flow continuously over the surface of the land, any excess over that required to maintain an average depth of 15 inches passed over weirs constructed at the far end of the bed, directly into the under drains. About 800,000 gallons passed on to the land daily; of this about 6,000 gallons passed over the weir. With regard to the composition of the water ponded up on the surface of the land, this for about six months continued to be of very fair quality, the development of organic life which took place in it apparently tending to its purification. Towards the latter part of the period during which the land was flooded the quality of the water deteriorated and signs of putrefaction were apparent, but at no time was this sufficient to cause a serious nuisance. The result of the experiment goes to show that a liquid having the composition of the present tank effluent may safely be ponded up for a short period on a surface of land without causing any injury to the neighbourhood. On November 1st, 1898, the penstocks were closed, and the land allowed to drain preparatory to ploughing. Land Bed No. 2, area 13 acres, adjoining No. 1 Bed, was started on January 5th, 1899. The inlet penstocks were kept open eight hours a day, Sundays excepted. The surface of the land was flooded to the depth of a few inches, and for the first few days a little over 1½ million gallons of effluent passed through the land in twenty-four hours. This amount gradually diminished to 1,200,000 gallons daily, at which it appears to remain fairly constant.

Details are also given in the report of the satisfactory working of the experimental artificial filters during the year, and of certain new works begun at Davyhulme.

The Value of Basic Slag.—It is only a few years since the value of basic slag—one of the by-products of the blast furnace—as a fertiliser, came to be recognised. Sir Alfred Hickman, M.P., was among the first ironmasters in South Staffordshire to introduce the material to agriculturists, and to impress upon them the large percentage of phosphorus which the by-product contained, and its great value in consequence as a fertiliser of the land. Agricultural lecturers of the Staffordshire County Council recommended farmers to try the experiment, but they were as a rule slow to act upon the advice. At length the use of basic slag was tried, and its success was so complete that it soon acquired a market value of 10s. per ton. The price to-day is 35s. per ton, and there is every indication that its value will continue to appreciate, as the supply is limited and the demand is increasing.

Non-Flammable Wood.—Experiments made with the "non-flammable" wood manufactured by the British Non-Flammable Wood Company form the subject of one of the latest reports of the British Fire Prevention Committee. The object of the test was to record the effect of fire upon this wood (yellow pine), which is specially prepared as "non-flammable," and to ascertain whether such boards of yellow pine, 1 in. thick, and built in the form of a partition 7 ft. 3 in high by 10 ft. wide, would sustain or spread flame when in contact with fire. In the first stage of the test the temperature rose to 1,000 degs. Fahr., in the second to 1,150 degs. Fahr., and in the third to 1,300 degs. Fahr. "No incandescence or spread of flame," says the report, "was observed, nor did the material, so far as could be seen, contribute in any way to the spread of the flame."

The Indigo Market.—Since the close of the October auctions, Messrs. Millward and Co. report that there has been a strong market, with a steady business doing in all descriptions at very full rates and an occasional advance of 2d. to 3d. per lb. The business transacted would have been much larger but for the very high limits placed upon their goods by a number of holders who expect that the Calcutta season will open so strongly as to justify a still further advance upon the London market. So far, only a few parcels of Oude have reached Calcutta from the new crop, with one lot reported sold for Japan at a price equivalent to fully 4s., and the prices generally asked by the native owners are upon a similar scale, which is 6d. to 9d. above the London currency. In all probability, when a further quantity reaches the market, their ideas will be modified. Shipments of Kurpah and Dry Leaf from Madras to London continue very small, only 130 chests being despatched during October, as against 1,000 to Suez, and 1,200 chests to Japan. Deliveries for the ten months total 11,633, against 14,142 chests, whilst stocks are now reduced to 8,439, against 12,051 chests at the same date last year.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Manufacture of Soap. H. Inman. 20,699. October 16.

Manufacture of Ferrous and Ferric Oxide and Chlorammonium. C. Wulffing. 20,700. October 16.

Production of Disinfectant Powder. H. H. Lake. 20,712. October 16.

Production of Spirits in a Solid and Dry Form. A. Kern. 20,745. October 17.

Treatment of Sewage. T. J. Barnard. 20,759. October 17.

Drying Peat. E. Springborn. 20,873. October 18.

Obtaining Caustic Lyes and Ammonia and Earth Alkaline Hydroxides by Electrolysis. C. Luckow, junr. 20,925. October 19.

The Synthetic Production of India-rubber. W. J. Cordner. 20,934. October 19.

Extracting Vegetable Oils by Pressure. A. F. Lundeberg. 20,950. October 19.

Recovery of Tin from Tin Scrap. T. Twynam. 20,972. October 20.

Improved Process of Tanning. H. B. Burnell. 21,074. October 21.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Process for the Purification of Brine. G. N. Vis, Schweitzehalle, near Basel, Switzerland. Eng. Pat. 26,777. December 19, 1898.

The sulphates of the alkali metals and alkaline earths—lime in particular—which are so prejudicial to the concentration of brine in vacuum, are removed by the use of chloride of calcium and chloride or carbonate of barium. Treatment with the former removes the greater part of the sulphate of lime, while the portion which remains in solution can be thrown down with a sufficiently small amount of barium chloride or witherite to render the treatment profitable. The brine is kept agitated and heated, as the reactions are facilitated in this way. Other salts of calcium, such as bromide or nitrate, can be used in place of the chloride, and the quantity of sulphates may be reduced by the use of calcium hydroxide.

Improvements in and Apparatus for the Separation of Free Carbon from Tar. F. Lennard, 70, Gracechurch-street, London. Eng. Pat. 2,183. January 31, 1899.

Difficulties arise in the distillation of tar owing to the free carbon which it contains. To remove this, the tar is first let down with sufficient naphtha or light oil to destroy the viscosity of the tar and yield a product having a lower distilling point than the original tar. This mixture is then intoduced into a conical retort (heated to the distillation point), in which it meets a current of steam. The volatile products are thus driven off and condensed while the carbon is deposited as a rough powder, at the bottom of the retort. The retort is heated externally, and is provided with a rotating scraper, which keeps the sides of the retort clear. The central shaft which carries the scraper also carries a distributing plate, which revolves in the head of the retort and presents the mixture evenly to the jets of steam which ascend from the bottom of the retort. The carbon is carried by the scraper down the conical sides of the retort into the water well or air-tight vessel which seals the apex of the cone. There are three figures.

The Preservation and Treatment of Kelp for the Extraction of Iodine and of Gelatinous Matter, and the Employment of the latter for Waterproofing Fabrics, Paper, Leather, Wood, and the like. S. Pitt, Sutton, Surrey (communicated by G. Laureau, Son & Co., Quiberon, Morbihan, France). Eng. Pat. 20,356. September 26, 1898.

When kelp is stacked in heaps before treatment, it decomposes to the detriment of the products to be extracted. To preserve it, the kelp is spread out and sprinkled with a 2% solution of mineral acid or a 1 in 25 mixture of water and heavy gas oil. It can then be stacked without injury. This preliminary treatment does not introduce complications in the subsequent extraction process, which is more fully described in the sister patent described below.

The Extraction and Utilisation of Gelatinous Matter and Cellulose from Marine Plants and the Treatment of the Liquors obtained. S. Pitt, Sutton, Surrey (communicated by G. Laureau Son & Co., Quiberon, Morbihan, France). Eng. Pat. 20,357. September 26, 1898.

The kelp is treated with a lime or bleach solutions. The resulting saline liquors are concentrated and treated for recovery of the iodides and the like. The residual mass of gelatinous substances and cellulose is then disintegrated by treatment with alkalies or steam and filter-pressed, whereby the glutinous liquid is separated from the cellulose. By the addition of different acids to the liquid portion, a number of jelly-like products can be obtained of varying solubility in divers solvents. Such weak acids as carbonic acid or vinegar can be used as precipitants. Some of these products are edible and can be made into jellies, or the basis of preserves. Others may be used for water-proofing fabrics, by running them through a bath of the glutinous product and gelatinising in an alum bath, or a solution of some other suitable metallic salt.

A Process of Manufacture of Aluminium and Magnesium Alloys. A. G. Brookes, 55-57, Chancery-lane, London (communicated by P. Aulich, Berlin). Eng. Pat. 14,226. July 10, 1899.

With a view to simplifying the industrial preparation of aluminium-magnesium alloys, which are of growing importance, various methods are described in which the alloys are obtained direct from compounds containing these metals. The process of production may be effected either by suitable chemical reducing agents or the electric current. For instance, metallic aluminium may be added to fused magnesium chloride, and after fusing the two together, sodium may be added to separate the magnesium. As an alternative the bottom of the crucible may be connected with the negative pole of a source of electricity, the aluminium forming the cathode. Numerous other methods of procedure are given.

Correspondence.

**** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

TUNGSTEN BLUE.

(To the Editor of the Chemical Trade Journal).

SIR,—Can you, or any of your readers, inform me, through the columns of your valued paper, if Tungstic Blue is commercially used in this country, and for what purpose? With anticipated thanks for your kind assistance in this matter. I am, etc., M. C.

ANSWERS TO CORRESPONDENTS.

W. (ANTWERP).—The quotation for oxalic acid is given regularly under "Prices Current." Apart from that, it is also referred to in the "Miscellaneous Chemicals" market report whenever the movement of this article calls for comment.

J.H.—The matter is hardly of sufficient interest.

C.W.—See this week's issue.

L.H.—We do not touch on such matters at all. Relevant items are always open to careful consideration.

PRIMITIVA GAS CO.—In pursuance of the paragraph in our issue of Oct. 21st, our Buenos Ayres correspondent announces that at a recent extraordinary general meeting of shareholders of the Primitiva Gas Company, it was resolved to sell the company to an English syndicate, and shareholders were advised that they must decide whether they would take ten pounds in cash or preferred shares. This selling of the company is a very good move on the part of the shareholders, as it will give more capital to carry on the extension works that are so much needed, especially in the electric light section, in view of the competition of the other companies.

THE RESIN MARKET.—During the past month "pales" have maintained a firm position. The proportion of this classification in the general receipts is so small that practically no offers for shipment from the other side of the Atlantic are being made, and a further advance of prices is predicted. Medium grades are also said to be firm, the demand being quite equal to the supply. Common grades are unchanged, with little business. There has been a small demand for pale grades in London during the past month, but supplies have been so limited that high prices have had to be paid for actual business. Common and medium grades have been neglected, but prices have not been quotably changed. In Liverpool the quotations for low grades show a decided advance, but they are not regarded as reliable, sellers in many instances having accepted much lower figures. Stocks on the spot are relatively large, and a considerable additional supply is on the way. It is stated that it will take a long time for the market to recover from the depression due to these facts. Pales, on the other hand, are exceedingly firm in Liverpool, and much higher prices in this case are looked forward to.

A PLEA FOR THE PRELIMINARY EXAMINATION OF PATENTS.

THE following paper was read by Mr. Lloyd Wise at the Congress of the International Association for the Protection of Industrial Property, which was held at Zurich last month. Mr. Wise said:

Our Congresses deal with many branches of the comprehensive subject—Protection of Industrial Property. In consequence, sufficient time is not available for entering minutely into any one branch of the subject. Nevertheless, some of the questions which have been prominent for many years are of the highest importance. None is more serious than that of the preliminary official examination as to novelty of inventions sought to be patented. Two principal systems may be said to be embodied in existing laws:

1. Issue of Letters Patent at applicant's own risk, so far as novelty and utility are concerned.

2. Preliminary official examination, with power to refuse the grant of Letters Patent, where the officials are of opinion that the invention is not sufficiently new.

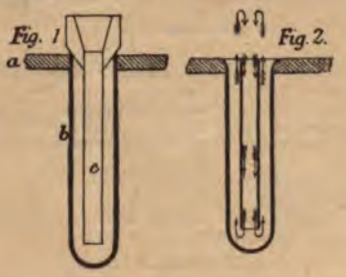
Both systems are bad. The first system is bad, because:

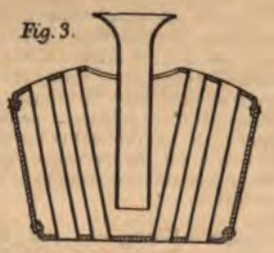
(*a*). It often encourages the patentee to go on expending time and money, which (assuming him to be honest) he would not do, were he aware of what had been previously proposed.

(*b*). It enables unprincipled persons to knowingly obtain patents with unsustainable claims, without any indication to the rest of the world concerning the previous state of public knowledge; and, consequently,

(*c*). It affords to unscrupulous persons not only the opportunity, but also a strong inducement to obtain patents with unjustifiably wide claims, merely for the purpose of levying blackmail.

This is distinctly contrary to public policy. Precisely the same objection will hold good if (in accordance with the resolution of the Paris Congress of 1878) there be official examination as to novelty, with an intimation of the result to the patentee, but not to the public. The plan of instituting official examinations as to novelty, and refusing a patent when the officials consider that there is an absence of novelty (as in the German, U.S.A., and other systems), is even more objectionable than the granting of Letters Patent at applicant's own risk, without any preliminary examination whatever; because,





(*a*). Mistakes are often made.

(*b*). Patents are refused that ought to be granted; thereby, *inter alia*, inflicting irreparable injury upon many deserving inventors.

(*c*). Patents are granted for inventions believed to be new, but which, in reality, are old; and,

(*d*). In the last mentioned cases, the public are grievously deceived; and so, very often, are the patentees themselves.

If a patentee claims more than was new, his patent should be invalid until he has disclaimed what was old. In the contrary case, a strong inducement is offered to unprincipled persons to obtain patents with unjustifiable claims, merely for the purpose of levying blackmail: which is obviously detrimental to trades and manufactures. To encourage this is to invite abolition of all protection for inventions. On the other hand, remembering the enormous number of inventions already known, and the large number which every year make their appearance, t becomes evident that inventors and the public are very likely to regard as new, devices which, in reality, have been anticipated. In such cases it is only fair to give them due warning. The matter is one to which I have given special attention for about a quarter of a century; and I am not only satisfied myself, but also I have repeatedly convinced many persons whose practical experience entitles their opinion to respectful consideration, that it is quite possible to secure the advantages of the preliminary official examination system, without the disadvantages which attend existing methods of carrying it into effect.

My plan is as follows:

1. Every application for Letters Patent to be officially examined as to novelty, but not as to utility; because in many cases this cannot be determined from the documents alone, or from the evidence available at the time of applying for Letters Patent.

2. The applicant's attention to be expressly drawn to any prior publications which seem to bear on his claims.

3. If the applicant does not consider his invention to be anticipated, then a patent should not be refused, provided the applicant shall amend his specifiation, by expressly mentioning therein the prior matter found, and (if he so desires) modifying his description and claims.

When I was many years younger, I had much to do with a highly successful invention, which some experienced authorities considered not capable of supporting Letters Patent, regard being had to what had been previously proposed. It will afford on this occasion (as it has done before) a convenient example to adopt, by way of illustrating the system I recommend.

Fig. 1. shows part of a steam boiler, according to the invention in question. It is constructed with a number of sets of tubes, but only one set is shown. *a* is the tube-plate; above it is water and steam space of the boiler; *b* is a pendent tube, closed at bottom; this tube is located in the furnace, firebox, or flue of the boiler; *c* is an inner tube, of smaller diameter, open at both ends, and provided at its upper end with a trumpet-mouth (or an equivalent enlargement). Through the walls of the outer tube heat is transmitted to the water in the annular space between the two tubes, where steam is generated and steam and water rise rapidly, water from the boiler space above descending by the inner tube.

The inventor subsequently discovered that the constructions represented in Figs 2 and 3 had already been proposed. Let it be assumed that the inventor, in such a case, applies for a patent with the following claims. "Firstly. The use or employment, in apparatus for heating fluids, of one tube within another, for the purpose of separating the ascending and descending currents from each other, substantially as described. Secondly. The use or employment, in apparatus employed for heating fluids by double tubes, of trumpet mouths or equivalently formed guides or deflectors, for the purpose of preventing the interference of the ascending and descending currents with each other, and insuring a steady and sufficient circulation through the tubes, substantially as described."

Let us, furthermore, assume that, on investigation, the Patent Office authorities discover in Patent Specification No. 6,128, A.D., 1831, the arrangement Fig. 2, and in the *Mechanic's Magazine*, No. 1,671, for August 18, 1855, the arrangement Fig. 3.

Now, under preliminary examination systems as at present practised, it would be open to the examiner to say "Claim 1 is anticipated by Specification No. 6,128, A.D., 1831, and claim 2 by description in the *Mechanic's Magazine* of August 18, 1855. The patent is refused."

In such a case, the applicant's alternatives would be to appeal, or to go without a patent. The appeal might succeed or not; for, be it remembered, the full practical importance of a seemingly small difference in construction is not always apparent to one who has nothing but a drawing and description to judge by. After an invention has been thoroughly tested, and not till then, can its merits be truly appreciated; and, usually, not till then can a sound judgment be given as to its sufficiency to support a patent. The risks of error and injustice are very great. And thus the public may for a long time fail to realise the advantages of a very valuable invention.

Now, according to the mode of procedure I advocate, the patent would not be refused. But the Patent Office would report to the applicant after this fashion: "Applicant is referred to Specification No. 6,128, A.D., 1831; also to the description of Barran's boiler in No. 1,671 of the *Mechanic's Magazine*, August 18, 1855. These prior arrangements must be mentioned, and the claims restricted accordingly." Then the applicant could, at his own option, abandon his application, or amend his specification; say, for example, adding to it as follows: "Having described the nature of my invention, and the manner of carrying it into practical effect, I would have it understood that I do not lay any claim to novelty in respect of the mere employment of one tube within another for the purpose of separating the ascending and descending currents from each other, as such an arrangement is, I am aware, described in the Specification of Perkins's patent, No. 6,128, A.D., 1831. Nor do I claim as new the use of a trumpet-shaped tube in the opening leading from the interior of a boiler to the interior of a suspended water box, as in Barran's cup surface

boiler, shown in the *Mechanic's Magazine*, No 1,671, August 18, 1855 But what I do claim is"—Here might properly follow the second claim, as given above, the first claim being omitted.

Now the advantages of such a plan will be manifest. The inventor is not left to go on in the dark, and claim more than he would wish to claim, regard being had to the state of public knowledge at the date of his application; hence the grievance would be met of those who now complain that, in countries where there is no examination, the Government takes their money and renders no assistance, but gives them a patent for an old thing without any warning. Also the patentee's interests would not be prejudiced, as it would be if any official notification, accessible to the public, were placed upon his patent or on the records; because there need be nothing to show that he had not of his own free choice originally mentioned these prior inventions in his specification. On the other hand, the public could not complain, for the specification, on its face, would clearly indicate how much and how little the patentee was entitled to; and they would know, at a glance, exactly what it was they would not be entitled to do without the patentee's authority. If the prior matter amounted to a full and exact anticipation, the applicant would naturally abandon his application. Even if he did not, he could do no harm, for the specification would itself show the worthlessness of the patent. I beg leave to suggest that the Congress should pass a resolution to the following effect:—"Refusal of Letters Patent for alleged want of novelty is objectionable; but it is highly desirable, both in the interest of the public and of inventors, that there should be an official preliminary examination as to novelty, simply for the purpose of ensuring that, where the invention has already been closely approached, the applicant shall clearly indicate the fact in his specification; the patent being then granted, if the applicant so desires, but entirely at his risk."

FATAL EXPLOSION AT THE MANCHESTER GASWORKS.

AN explosion attended with fatal consequences occurred at the Rochdale Road Gasworks on Monday this week. The Rochdale Road works form the second largest of the four gasmaking establishments belonging to the city, covering 9 acres.

How the accident was really brought about is not quite clear. All that can be said is that about a dozen men were at work at a main near the old meter-house, that the time was about half-past eleven in the forenoon, and that there was suddenly a fierce explosion which threw down the workmen round about, together with the manager who was standing not far away—and gave forth a loud report. The tower and meter-house were set on fire, the building was practically burnt out, and the gas in a large main leading to the meter-house was lighted. The flames leapt and crackled about the tower in an alarming way, and messages were despatched forthwith to the chief fire station The progress of the fire was watched by a growing crowd with lively feelings, for it was feared by many that with a spread of flames a still more serious explosion might be the outcome. Happily this foreboding was not realised. Meanwhile it was seen that the manager was very seriously hurt, and that nearly all the men who were about the place of explosion had suffered some injury. It was then found that Mr. Stevenson's case was very serious. As soon as he arrived at the Infirmary he received every attention that medical skill could suggest, but all was in vain, and Mr. Stevenson died in the afternoon about half-past three.

The late Mr. George E Stevenson had an exceptional professional career. He was about 57 years of age, and was a son of the late Mr. Geo. Wilson Stevenson, a consulting engineer who had an unrivalled practice in connection with gas and water undertakings. Mr. G. E. Stevenson commenced his career as a pupil in the locomotive works of the London, Brighton, and South Coast Railway. After a three years' training there in mechanical engineering, he was for some time in his father's office designing and superintending the construction of the gasworks of which his father was engineer. Then he took charge of two small works, which were leased by his father at Tenby and Pembroke Dock. When 23 years of age he was appointed secretary and manager to the Aberdare Gas Company. After a short experience in that locality he removed to the Continent, where he acquired further experience until 1876. Then he returned to England and became engineer and manager of the Peterborough Gasworks. Whilst at Peterborough he also issued his first "Gasworks Statistics," a work which was adopted by the Board of Trade as a model for the annual returns now issued. From Peterborough Mr. Stevenson went across the Atlantic to Buenos Ayres, where he filled an appointment as engineer to the Buenos Ayres New Gas Company. After six years' absence he was back again in England, and did not wait long before he was appointed manager of the Rochdale-road Works in Manchester, which then formed the principal Corporation gas station. In January, 1896, the Gas Committee and the Council appointed him chief consulting and constructive engineer of the enormous gas undertaking of the Corporation.

Official Memoranda.

(From the Board of Trade Journal).

PROGRESS OF RUSSIAN MANUFACTURING INDUSTRY.

In a report to the Foreign Office from H.M. Consul-General at St. Petersburg it is stated that according to the "Trade and Industry Gazette" of the Ministry of Finance, the share capital of various financial, manufacturing, industrial, steamship, and other enterprises in operation in Russia numbering 990, was estimated in April, 1898, at 1,666,121,355 r. (£177,025,394.), as compared with a share capital of 889,999,000 r. (£94,562,392) existing on 1st January, 1895, and 594,597,000 r. (£63,175,931) valued on 1st January, 1896.

Of the total of the share capital in existence in 1898, 325,190,979 r. (£34,551,541.), or 19.5 per cent., represented the capital of 113 foreign companies allowed to establish themselves in Russia, the majority consisting of Belgian enterprises. Those of British origin are mostly concentrated in the South of Russia, and as yet the range of their activity is in metallurgy and naphtha working. It must be observed that the share capital of companies in operation at the beginning of 1898 does not include those of private railway companies with a capital approaching 112,000,000 r. (£11,950,000.), and of those of industrial and other companies, native and foreign, other than railways, sanctioned after April 1st, 1898, and during the course of the present year with a capital of 250,000,000 r. (£26,562,500.). The nominal amount of share capital of private enterprises may therefore be reckoned at the present time at no less a sum than 2,000,000,000 r. (£212,500,000).

The following is a list of the most important financial, industrial, and other concerns now existing in Russia, in which the amount of their subscribed share capital is shown:—

	Number.	Share Capital, April, 1898. £
Manufacturing companies	177	29,853,168
Metallurgical companies	101	26,527,703
Banks, short and long terms of credit	48	24,314,200
Coal-working companies	17	4,596,640
Naphtha-working companies	19	5,302,406
Insurance companies	20	4,701,437
Chemical works	36	3,814,370
Sugar works	109	8,530,918
Breweries, distilleries, &c...	44	3,103,663
Paper mills	24	2,153,156
Electric lighting companies	7	1,142,187
Gas, water, and sanitary works	16	1,749,744
Public buildings, hotels, baths, warehouses, &c...	38	2,487,121
Pawnbroking companies	—	929,687
Tramway and other companies	11	1,825,370
Steamship companies	29	4,935,043
Saw-mills and wood-working companies.. ..	15	1,205,937

While Russia is making great strides as a manufacturing country—made, as many think, at the cost of the interests of the rural population at large—her agricultural condition is certainly not advancing. Great hopes are entertained by a certain class of Russian economists that, with the firm establishment of home manufactures, and when the agricultural classes in general shall have been raised to a level of prosperity, very different to their present unsatisfactory state, Russia will be able to supply all the wants of her own population without having recourse to foreign supplies. Some reckon this a Utopia, or equivalent to the creation of a great Chinese wall round Russia, and they consider that all attempts towards its realisation will only serve to damage still further the true interests of the country which lie more immediately, and at all events at present, in the direction of agriculture. With a superabundance of rural population, and the spread of enlightenment throughout the country, the manufacturing era would set in in the course of natural evolution. In the absence of these two essential conditions for the successful development of manufacturing undertakings, the present system of fostering them by an abnormally high custom tariff may, it is declared by some organs of the Russian press, be regarded as a very costly, artificial method, having no sound foundation, and doomed to fall so soon as the artificial prop, afforded by the tariff, is withdrawn.

THE PRODUCTION OF MOLYBDENITE IN SWEDEN.

Her Majesty's Consul at Stockholm gives the following particulars as to the mineral molybdenite, which is found in some parts of Sweden.

The Consul states that the mineral molybdenite is frequently found in the country amongst several species of rocks, and with iron ore, especially in some of the most important iron ore fields, such as Norberg, Bispberg, Riddarhyttan, etc., but that it has been worked to hardly any extent. The largest quantities of this mineral have been found in the mines at Vestanfors (in the parish of Vestanfors, province

of Vestmanland), and on an island called Ekholm, in Eds Kapell, in the province Norra Calmar.

A certain Mr. A. E. Fahlcrantz, a civil engineer of No. 47, Nybrogatan, Stockholm, states that he is the owner of about one hundred kilogrammes of molybdenite, which he found about fifteen years ago at Vestanfors, the mine above named, containing 42 50 per cent. of molybdenite, which he offers at two kroner per kilo, for thirty days from date.

TRADE IN RUSSIAN POLAND.

A despatch has been received at the Foreign Office from H.M. Consul-General at Warsaw, containing some information relative to the openings for trade in his district. He reports that there are still many openings for public works in different towns; Lodz (400,000 inhabitants), wants improved pavement, Australian wood for choice, and also water, drainage, and electric lighting. The service of electric trams started there by Germans last year is working admirably. At Lazy, where two of the largest cement works in Poland are situated, one producing three and the other one and a half millions of pounds of cement a year, the German influence is supreme. All the machinery in the works and steam engines are of German make, and the stoves are on the German system. There are chemical works at Lowicz, started by a Belgian, and electrolytic works at Lombkowice, started in 1896 by some Polish capitalists in conjunction with a Berlin company, and it is said that both are doing very well. The former produce superphosphates, and sulphuric, hydrochloric and nitric acids, and the latter chloride of lime, calcium carbide, and caustic soda, &c.

QUEBRACHO WOOD FREE OF DUTY.

The United States Consul-General at St. Petersburg states that for the purpose of encouraging the leather industry in Russia, the Government has decided to place the quebracho tree - found in Chile, Mexico, and the Argentine—on the free list.

The principal material for tanning in Russia is willow bark, which is collected in the early spring by the peasants before field labour begins; consequently, when the question of duty on tanning material is considered the interests of the peasants are involved.

The willow bark contains but 4 per cent. of tanning, while the quebracho tree yields 20 to 24 per cent., and is necessary for the preparation of leather of a high grade. Previous to 1882 tanning material was admitted free, but during that year a duty of 2¼d. per 36 lbs. was levied; this was reduced to 1¾d. per 36 lbs. in 1896. Last year a committee appointed to consider this question decided, inasmuch as quebracho wood is not grown in Russia, is a necessity, and is only used as a mixture with willow bark and other tanning material employed in the leather industry, to admit quebracho wood in logs and beams free of duty from and after February 15th, 1899.

The loss of duty is estimated at £4,500. annually, and it is expected that sum will be more than replaced by the increased manufacture of leather. Russia is rich in raw skins, which are being exported to England, Germany, and Finland. These countries receive their tanning material free of duty, and export leather to Russia.

DUTY ON ASBESTOS PAINT.

Under the designation of "asbestos paint," a colour preparation has been frequently introduced from the United Kingdom into Germany, across the Hamburg Customs frontier, which is used in electro technical establishments for rendering by impregnation the cotton covering of the wires, conveying the electric current, incombustible. According to the chemical analysis, this preparation is composed of about 19 per cent water, 15 per cent. linseed oil, and 66 per cent. inorganic substances (principally oxide of lead and oxide of zinc), and contains no asbestos whatever. The preparation is consequently dutiable as "painters' colours" according to No. 5 A 2, at 200 marks per 100 kilos.

Messrs. Porritt Brother and Austin.—This firm informs us that on and from the 24th of October last the partnership lately subsisting between Mr. John Austin Porritt and this firm has been dissolved by mutual consent, so far as he is concerned, and that in future the business will be carried on at Stubbins Vale Mills, Ramsbottom, under the style or firm of "Porritt Brother and Austin."

Catalogues for the Paris Exhibition.—We are informed that Mr. C. Wilkes, 29, Ludgate Hill, London, has been appointed General Manager and Sole Agent for the British Empire (Canada excepted) for all English advertisements or publicity in the General Official Catalogue of the Paris 1900 Universal Exhibition; also for the French and English Guides and other publications issued by Messrs. Lemercier and Co., official contractors to the French Government and Exhibition Board.

Reports of Companies.

NEW ARTIFICIAL SILK CO., LTD.

The statutory meeting of the New Artificial Silk Company, Ltd., was held last week at Winchester House, Old Broad-street, E.C., under the presidency of Mr. J. Cash (chairman of the company).

The Chairman said: This being only the statutory meeting, no business can be transacted; but the directors desire me to give you a little résumé of the work that has been done since the meeting of the old company, which was held on July 28 last. It will be a rather meagre report; but it may interest some of you. First of all, I may tell you that all the assets of the old company have been transferred to the new company; so that you are in full possession of your property. Two directors have been added to the board, in accordance with the wish expressed at the meeting to which I have already referred. The two new directors are Mr. Edwards and Mr. Westerman, who, together, represent a holding of 24,000 shares, or one-eighth of the total capital of the company, so that I think you will agree with me that they are fairly representative. Not only so, but Mr. Westerman is at present manager of the Swiss company's works at Spreitenbach, and is thoroughly acquainted with the whole process, and he will give us the advantage of his experience. He has brought those works to a successful issue, and they are now flourishing and producing large quantities of silk. I will not commit myself by saying exactly the amount of silk which is being produced there, but I think I am right in saying that it is some 300 kilogrammes a day, which is about 600lb., or 3,500lb. per week. Mr. Westerman has brought those works to that successful point, and I am certain his experience will be of very great help to this board. The aluminium plant which we are working, and upon which some doubt was expressed by some of the shareholders, has proved a complete success. Perhaps I should not describe this as plant, but rather as experimental filters and pipes that we have put into a portion of the original plant. Then we are also erecting a small

PLANT ENTIRELY OF ALUMINIUM

from beginning to end, and we are perfectly satisfied that this will be a great success, and will considerably improve the quality of our production. This plant, which I will not call experimental, for we know it will be a success, is almost completed, with the exception of a large compressor which is having an aluminium lining, and which we expect will be delivered next week. One such compressor has already been delivered, but the aluminium casting was defective, and the aluminium company kindly took it back and replaced it with a perfect one, otherwise that would have been in working order before now. There is very little further I can tell you, except that the works were started about a fortnight ago, and we got our collodion beautifully clean with the new filters and new pipes, but unfortunately we had a breakdown with the acid press, and anyone who understands the process will know that that is the very first part of it. That, I am sorry to say, has taken a fortnight to mend. I was at the works recently, and found that the breakdown had been remedied; so that next week, or, at least, when we have sufficient collodion made, we shall begin to spin. The collodion has first to be made to fill the pipes, and, in fact, to fill the whole cistern, and it will take, I daresay, quite a week to ten days to make that collodion before we commence spinning. I feel quite safe in giving you an assurance that we are now on the highway to success. You already know that the Besancon factory and the Spreitenbach factory, of which we have the manager on our board, are a success, and there is no reason why we should not soon be producing silk which at the present time has a very large market value, and upon which we shall see a very large profit.

In reply to questions, the Chairman said they did produce a small quantity of silk prior to the breakdown of the acid press. Their mill would hold four times the quantity of plant they possessed at the present time, and with twice the amount they at present had they would be able to produce 3,500lb. per week. He hoped the works would be producing in about a fortnight's time, but he was not able to say definitely. In answer to a further question, the Chairman said there was no reason whatever to suppose that there was anything in the specification which had been withheld, and from what he had seen at Besancon he did not think anything had been. They had suggested to Mr. Westerman that he should allow his chemist to come over to their works for a week, and he understood that that could be arranged, so that if they were wrong in any detail the man who was producing silk at the present moment would be able to put them right.

A Shareholder remarked that as this company's chemist was over at Spreitenbach at the present time he would be able to detect anything that had been withheld, if there were anything.

Mr. J. A. Scott (a director) said that Mr. Westerman, who was a practical man, having brought the Spreitenbach factory to its present success, had been over this company's works, and certainly would not have joined the board if matters had not been all right. Mr. Westerman was a large shareholder, and the fact of his joining the board would seem to indicate that they were approaching a paying position.

A Shareholder remarked that at the last meeting a very strong protest was presented by French shareholders against paying the assessment under the reconstruction, and he wished to know whether they had paid their assessment or not.

The Chairman: Yes; it has all been paid up.

Mr. Parry asked whether the directors considered the mercerised yarn now being produced would have any effect upon the silk trade.

The Chairman: It will not affect us in the least. Whatever we produce we can sell.

Mr. Scott: This mercerised yarn is only of very recent date, and our silk has gone up considerably in price since the mercerised yarn was introduced.

The proceedings then terminated.

SANTA ELENA NITRATE CO., LTD.

The tenth annual ordinary general meeting of the Santa Elena Nitrate Co, Ltd., was held last week at Winchester House, E.C. The Chairman (Mr. A. R. Robertson), proposed the adoption of the report and accounts, and expressed regret that on account of the unsatisfactory position which the nitrate market had maintained during the year, the directors could not make a better showing. The accounts showed a profit of £207. odd, which the directors proposed to carry forward, making, with the amount brought forward last year, £1,756. Notwithstanding that at one time during the year there was an improvement in the price of nitrate, it was not sufficient to justify the outlay which would have to be made for a resumption of manufacture. The board had reduced expenses as far as possible, and had kept up the plant in thorough condition; so that when prices improved and they were able to acquire new properties and new grounds, they would be able to start with their machinery in first-class condition. Their financial position was good. They had no debts, and the small balance of the outstanding loan which appeared in last year's accounts had been paid off. With regard to the combination, he regretted to say that nothing had been done, so far as they were concerned, as the board had not seen their way to bind themselves on the proposal that was made to them.—Mr. T. P. Baptie, D.L., J.P., seconded the motion, which was unanimously agreed to.

HOLMES OIL CO., LTD.

The report of the company's affairs for the year ended April 30th, states that there is a debit balance of £196. 13s. 1d., which, with the balance brought forward from last year of £6,561. 6s. 9d., leaves a debit balance of £6,757. 19s. 10d. to be carried forward to current year. The price obtained for crude oil during the year was at the minimum price provided by contract with Linlithgow Oil Co., Ltd. A better price has, however, been realised for sulphate of ammonia, but any gain from that source was absorbed by the advance in wages, fuel, and stores.

SOCIETY OF CHEMICAL INDUSTRY.

NOTTINGHAM SECTION.

THE first meeting of the present session of this section was held on October 25th at University College, Nottingham, Dr. Stanley Kipping, F.R.S., in the chair. Amongst the members present were Messrs. Archbutt, Adams, Caven, Carulla, Golding, Pentecost, Trotman, and Dr. Sudborough. Mr. J. T. Wood, hon. sec., read a paper, entitled "Further Notes on the Action of Dung Bate," which, whilst of special interest to those engaged in the tanning industry, also contained much to attract the attention of brewers and others having to do with fermentative processes. In the course of the paper the author summarised his experiments conducted since the publication of his previous paper in the "Journal of the Society of Chemical Industry" for 1898, with a view to producing an artificial "bate." The author has been led to the conviction "that mixed cultures of suitable bacteria possess the required action, whereas pure cultures do not." An examination of a certain infusion possessing the desired action on skins, also disclosed that the bacteria contained in the solution consisted practically of only two species. From the observed facts, Mr. Wood thinks it evident that the growth of the bacteria is a symbiotic one; separately they exert little or no action, whereas used together the action is most remarkable.

Mr. Wood described also the Carlsberg vessel for the cultivation of bacteria on an industrial scale (see this *Journal*, June 10th, 1899), and gave the results of his study of the influence of the solid matter in these solutions, by which he had been led to the discovery that the addition of kaolin to the artificial "bate" greatly increased its activity. He concluded: "It will be seen that it is now quite possible to produce an artificial dung bate, by producing the required euzymes by fermentation, and then adding to them the amine compounds. The chief difficulty in its practical application in the tannery is the question of cost. If this can be overcome, and efforts are being made to overcome it, there is no doubt that the tanners of the next generation will be supplied with a bate which will do the same work as the dung bate, and which will have a definite and uniform composition and properties, and a regular and certain action. The tannery will become cleaner and healthier, and what is perhaps of equal importance, the sewage effluents will be comparatively harmless."

In opening the discussion the Chairman said that as far as he had gathered, this was the first time in the history of tanning chemistry that an approach had been made to the successful production of these solutions, artificially. The subject is one that bristles with difficulties, especially to those who are not practically engaged in the industry. He would ask Mr. Wood whether the bating process was similar to the fermentation of starch in which you have two ferments engaged—not acting together—but one following the other? The starch has first to be converted into diastase and then the yeast euzyme comes into action—two distinct chemical steps.

Mr. Wood answered he did not consider the two cases similar. In the bating process the ferments acted together. Mr. Wood further said he wished to acknowledge the great assistance he had from Mr. Golding, who made the first actual pure cultures by the method described.

Mr. Golding stated that the amount of oxygen—*i.e.*, air—that is allowed to have access to the culture greatly modifies its character.

Mr. Archbutt said he would also be glad if Mr. Wood could throw some further light on the extraordinary action of kaolin in hastening the action of the ferments.

Mr. Pentecost asked whether the length of time necessary for the action of bird manure solution (total solids, 3·26%) would be much greater than that for the solution of dog manure, containing 8·64%.

Mr. Archbutt further asked whether in view of the modifications brought about in these solutions by organism derived from the air, whether when a new tannery is opened there is any difficulty in producing this dung bate at first. One has in mind the fermentation of cheese in different dairies. The character of the cheese is peculiar to each dairy. One wonders whether the same thing happens in tanneries, and whether there is in consequence a difference in the leather from different tanneries. It seems rather extraordinary if these organisms are found to be the same everywhere.

The Chairman: If different tanneries have different smells.

Dr. Sudborough complimented Mr. Wood on his work, and wondered how he could find time for it, knowing what a busy man he was commercially. Would it not be possible to take still another step in advance, and isolate the euzyme itself?

Mr. Wood, in his reply, said that there was much yet to be learnt from a scientific point of view in the matter. As far as his observations went the action of the ferments in the bating process was a concurrent one, a symbiosis. In regard to the kaolin, he might mention how its use occurred to him. He filtered the natural bate, thus getting it without solid matter, and found that the filtrate had no action, it did not bate. This gave him the idea, and he added the first seemingly suitable solid body to hand, which happened to be kaolin, to his artificial bate. He is now using infusorial earth. The effect may be regarded as a mass action. Similar actions take place in brewing.

Mr. Archbutt: What quantity of the solid body do you add?

Mr. Wood: About 5 grammes to the litre. In regard to the organisms that produce the effect described, I believe, for instance, that if you left milk anywhere in the world it will go sour, showing that the necessary organisms for the lactic fermentation are to be found everywhere. There seems similarly to be a sufficiency of those required by the tanner in any part of the world. At least I have never heard of any difficulty in the "sweating." In regard to the "souring" there is some slight difference in different parts of the country, but not a great one.

Mr. Trotman: Is it not the case that you do not select the organisms but rather that the medium determines their action?

Mr. Wood: This may be so. Answering Mr. Pentecost's question, Mr. Wood further said that bird dung takes very much longer to act, the reason, as far as he knew, being that it is used at the temperature of the air, whereas dog dung was employed at 37°C. Referring to the artificial production of lactic acid, he said that 5,000 gallons had been made at a time, inoculating with a big volume as much as 5%. Dr. Sudborough's suggestion that the euzymes themselves should be used was very good in a way, but the cost would certainly be prohibitive.

On the motion of the Chairman, thanks were accorded by acclamation to Mr. Wood for his interesting paper. The next meeting of the section is fixed to take place at Derby on November 29th.

Obituary.—The death has taken place at Newcastle-under-Lyme of Dr. J. T. Arlidge, who will be best remembered as Medical Inspector of Factories in the Potteries. It was largely due to his action that public attention was drawn to the evil effects of the use of lead in the pottery trade, and special rules for its regulation were drawn up.

Market Reports.

TAR AND AMMONIA PRODUCTS.

There is a steady tone about tar products. Benzols are rather firmer at 9½d. for 90's and 10½d. to 11d. for 50/90's. Carbolic acids are strong. Naphthas steady and unchanged in price. Creosote is in good request, but an effort has been made by buyers to get in at easier prices. Pitch steady at 34s., f.o.b. East Coast.

Sulphate of ammonia is weaker still. For November-December Beckton offers at £10. 10s. For prompt business London outside makes are quoted £10. 12s. 6d., Hull £10. 12s. 6d., and Leith £10. 12s. 6d. Nitrate of soda steady.

MISCELLANEOUS CHEMICAL MARKET.

Business during the past week in most chemicals has been of a brisk character, and prices generally are good. Bleaching powder has advanced 5s. per ton, price now standing at £5. 15s., and caustic soda has followed with a rise of 10s. for this year and 5s. for next, thus making prices for 70% stand at £9 and £8. 15s. per ton, respectively. Pure alkali, 58%, is in good request, and to-day's quotation is £4. 7s. 6d. on rails. Saltcake quiet at 26s. Soda crystals move well at 55s., rails. Chlorates of potash and soda not very strong, but there is no quotable change. Sulphate of copper in active demand at £25. 2s. 6d. to £25. 5s. Nitrate of soda still at £7. 15s., and no large business passing. Lead salts are strong. English white acetate, £26. 10s.; foreign, £23. 10s.; brown, £19. 10s. Acetates of lime are firm, and prices have an upward tendency. Brown is quoted to-day, £5. 15s., and grey, £8. 15s to £9. White powdered arsenic has a strong position, and prices are strong. £19 5s. to £19 10s. at Garston is to-day's value, and no great quantity offering. Sulphocyanides are in moderate request, and prices seem inclined to improve. Crude carbolic acid unchanged. Oxalic acid weak at 2⅞d. Muriate of ammonia is quoted £23. 10s., but very little actual business is being done at this figure. Sulphur of all kinds is in active request, but prices remain unchanged. Prussiates rather weaker. Potash, 7¾d., and soda 5⅝d. The demand for fine chemicals is above the average.

REPORT ON MANURE MATERIAL.

The market remains without any special feature to notice and without any important alteration in prices.

Quotations for mineral phosphates are unchanged, and there is no disposition on the part of manure manufacturers to make further purchases at present.

Bone meal is very quiet, buyers having, with a few exceptions, refused to follow the recent advance in price. Quotations remain as last reported, but sellers are inviting offers at less money.

Nitrate of soda is firm at the advance, 7s. 9d. per cwt. being quoted for good, and 7s. 10½d. per cwt. for fine quality.

Home prepared dried blood offers at 10s. per unit, of ammonia, per ton, delivered f.o.b., Liverpool.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron dull: Scotch warrants closed at 70s. 7d.; Middlesbrough, 69s. 4½d. cash; and hematite, 76s. 6½d. Copper easier; Chili bars, G.O.B.'s and G.M.B.'s, closed at £72. 8s. 9d. to £72. 13s. 9d. cash; and £72. 12s. 6d. to £72. 17s 6d. three months. Tin quiet: Straits closed at £140. 5s to £140 15s. cash; and £140. 5s. to £140. 15s. three months; Australian, £140. 15s.; English ingots, £144. to £145. Lead steady: Spanish, £17. 5s.; English, £17. 10s.; Silesian spelter, ordinary, £21 10s. to £21. 12s. 6d. Nickel, 1s. 2½d. Antimony, £39. 10s. Quicksilver: first hands and second hands, £9. 5s. *Copper Shares* quiet: Cape, 4 11/16 to 4 13/16; Copiapo, 3⅝ to 3¾; Libiola, 1⅜ to 1⅞; Mason & Barry, 3¾ to 4; Rio Tinto, 46⅞ to 47; Tharsis, 7⅜ to 8⅛.

GLASGOW, Wednesday.—Market inactive and easy. Scotch done at 70s. 8½d., 70s. 7d., and 70s. 8½d. cash; also at 71s. 1d., 70s. 11d, and 71s. 1d. month; buyers, 70s. 8d. cash; sellers, ½d. more. Cleveland done at 69s. 5d. cash; buyers, 69s. 4½d. cash; sellers, 69s. 6d. Cumberland hematite done at 76s. 7d. cash; also at 77s, 76s. 11d., and 77s. month; buyers, 76s. 8d. cash; sellers, ½d. more.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is in fairly good request, and a small amount of business has been done in Half Jack at £23. Olive is dearer with a very firm market, Spanish being quoted £34. 10s. per tun. Linseed is rather quieter, but so far prices are unchanged, with Liverpool makes at 25s. to 25s. 6d. per cwt. in export casks. Cottonseed steady at 19s. 6d. to 20s. per cwt. for Liverpool refined. Castor oil is only in limited request at 3⅛d. for good seconds Calcutta and 2⅞d. to 3d. for first pressure French. Tallow is quiet and unaltered in price. Resin is in fairly good demand for all grades at last quotations. Spirits of turpentine in moderate request at 38s. spot. Petroleum is rather dull, with American 7⅛d to 8⅛d., and Russian refined 6⅛d. to 6½d. per gallon.

CAKES.—Moderate sales of American Western linseed are reported in spot parcels, and the value is steady and without alteration at £7. 8s. 9d. to £7. 12s. 6d, whilst River Plate and Bombay have ruled rather quiet at the recent quotations. Liverpool makes continue in fairly active demand for consumption, and holders remain firm in their requirements at £8. 12s. 6d. to £9. per ton. Good to choice brands of American decorticated cottonseed are the turn quieter, with only a moderate business passing at £5. 15s. to £6. 2s. 6d., but Liverpool makes are still in good request at £6. 12s. 6d. to £6. 15s. per ton, and home crushers are very steady thereat. The value of Liverpool undecorticated makes is again the turn against sellers, but the demand is fairly brisk at £4 18s. 9d to £5. 10s. per ton, according to brand, and Egyptian on the spot are nominal at £5. per ton for want of supplies.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15; Derbyshire - common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10 Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—The market values all round are well maintained, especially those oils and fats in which soap manufacturers are most interested. The imports to date, as against the same a year ago, have been: Linseed, 477,845 qrs. against 326,751 qrs; rapeseed, 88,092 qrs. against 64,519 qrs.; cottonseed, 117,798 tons against 147,443 tons; oilcake, 17,468 tons against 10,749 tons; olive oil, 3 786 tuns against 5,625 tuns; tar, 13,558 barrels against 10,486 barrels. Linseed oil is in slow sale, being quoted 23s. 1½d. spot, naked; 23s., November-December; 22s. 7½d., January-April; boiled and refined, £1. to £1. 10s. per ton extra. The exports for the week have been total 26 tons—3 Denmark, 4 Germany, 19 Norway. Refined cotton oil is easier than it has been the former part of the week, the new crop of oil now coming upon the market, prices being 17s. 1½d., spot, naked, 17s. to April; casks, £1., and ordinary barrels £1. 10s. per ton extra. The exports have been 118 tons for the week—66 Belgium, 23 Germany, 23 Holland, 3 Norway, 3 Sweden. Olive oil very firm and unchanged. Olive oil soap has experienced another sharp advance, being quoted £18. 15s. per ton, ex quay, Hull, with further prospects of an advance. Turpentine continues at advanced rates. Cod oil, £16. to £19. per ton. Resins quoted from 4s. 4½d. upwards, according to grade. Castor oil from 3d. per lb.

CAKES, owing to the very open weather, are difficult to sell, best prices of linseed cakes are firm, and cotton cakes show a decline. The new season's crop of cottonseed is said to be yielding well, which will materially assist the syndicate to pay a first dividend. Linseed cakes, 95%, pure, £8. 15s. to £8. 17s. 6d. per ton. Oilcakes (linseed), £7. 12s. 6d. to £7. 10s. Russians, £8. to £8 5s. Americans, £7. 15s. per ton. Cotton cakes steady, best makes, £4. 15s. to £4. 17s. 6d.; seconds, £4. 12s. 6d; decorticated, none. Rape cakes, Black Sea, £4. 10s.

PAINTS.—Makers continue well employed for the season of the year. Prices unchanged.

EST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

op in sulphate of ammonia shows as yet no signs of having n, but of course the present time of the year is usually est for this article. Only spot business is being done, the ing strong in the fancy that smaller prices are still to be at present confining operations to the mere needs of the be bought to-day at £10. 15s., prompt, f.o b. Leith, but ask for rather more. With the exception of the £5 rise ac, there are no important price changes in the general is firm under a comparative depletion of stocks in some ines. Forward contracts are commanding higher prices delivery), and some are being booked. The chemical ine, on the Ayrshire coast, for years decadent, is showing f life in the re-opening of closed works.

current are :—Soda crystals, £2 7s. 6d. to £2. 15s., ne ; soda ash, £4. 10s. to £4. 15s., nett Tyne ; white £5. 7s. 6d. nett, Tyne ; alum in lump, £4 5s. to £4 15s. ; caustic soda, white, 74°, £9 5s. ; 70/72°, £8. 15s. ; 5s., and cream, 60/62° £8., all nett, Liverpool ; bleaching 7°, £5. 10s to £6., nett, Tyne ; saltcake, 26s. ; borax, ed, £16., and boracic acid, £25. nett, Glasgow ; bi- oda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s l ; bichromate of potash, 3¼d., less 6½% for Scotch and eries (for export, 3d. nett, f.o.b. Glasgow) ; bichromate , less 6½% for Scotch and English deliveries (for export, o.b Glasgow) ; chlorate of potash, 3½d , less 5% Liver- of soda. 7s. 6d. to 7s. 10½d ; sulphate of ammonia, mpt, f.o b. Leith ; salammoniac, first and second white, nett, any port ; sulphate of copper, £25. to £25. 5s , pool ; paraffin scale, hard, 2¼d. to 2¾d. per lb., and lb. ; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb. ; (naphtha), 11½d. to 1s. per gallon ; paraffin oil (burning), and crystal 7d. nett at Glasgow and other big centres, ers (English sales a shade lower) ; ditto (lubricating) 865°, 5°, £6. to £6. 10s. and 890/895°, £6. 15s. to £7. ts of sugar at Greenock were 7,400 bags, 372 hhds., and et unrefined.

TYNE CHEMICAL REPORT.

TUESDAY.

are fairly steady without alteraation in prices Soda quoted at £2. 17s. 6d. per ton, gross weight, locally. , £8. 15s., and 76/77%, £9. 10s. per ton. Sulphur 15s. per ton, f.o.b.

powder, softs, £6. per ton, nett ; do., hards, £6. 5s. ; caustic soda, 76/77%, £9. 10s., and 70%, £8. 15s. per covered sulphur, 2 cwt. bags, £4 15s. per ton, nett ; soda 10s. per ton, nett ; do , 50%, £4. 12s. 6d. per ton, nett ; 4 15s. per ton, nett ; alkali, 36%, £4. 5s. per ton, nett ; 48%, £5. per ton, nett ; do., 50%, £5. 3s. 9d. per ton, %, £5. 7s. 6d. per ton, nett ; hyposulphite of soda, s, £6. 5s. per ton, nett ; do., 1 cwt. kegs, £7. per ton, of soda, 75° Tw., £2. 12s. 6d. per ton, nett ; do., 100° ton, nett ; do., 140° Tw., £3. 7s. 6d. per ton, nett ; casks, £2. 17s. 6d. per ton, gross weight ; do., 2 cwt. . 6d. per ton, nett weight ; pearl hardening, £3. per ton, white sulphate of alumina, £3. 10s. per ton, nett ; blanc per ton, nett ; chloride of barium, refined crystals, £6. 15s. per ton, nett ; do., crude calcined, £6. 5s. per ton, nett ; carbonate of alumina, £30. per ton, nett ; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. per ton, f o b. Tees.

COALS.—Market still continues very firm, and there is a strong demand for practically all qualities of coal. To-day's prices are:—Best Northumbrian steam, 11s 6d. to 12s. per ton ; second qualities, 10s. 6d to 11s. per ton ; small steam, 7s. to 7s. 6d. per ton ; bunker coals, 11s. 9d. to 12s. per ton ; gas coals, scarce, 11s. 6d. to 12s. ; coke, very firm, 24s. to 25s. per ton.

New Companies.

London Keg and Drum Co., Ltd.—CAPITAL £5,000., in £1. shares. This company has been formed to carry on the business of metal and wood workers, and manufacturers of and dealers in kegs, casks, drums, cans, packing cases and other vessels for storing and transporting paint, varnish, grease, tallow, oil, soap, chemicals, colours, etc. Registered without articles of association by Pothecary and Co., 1, Gresham Buildings, E.C.

Chrome Tanning Co , Ltd.—CAPITAL £10,000 , in £1. shares (1,000 def.). This company has been formed to adopt an agreement with W. J. H. Smith, E. A. Muskett, and J. B. Scammell, and to acquire and carry on the business of tanners, curriers, chrome combination tanning, a secret process of tanning, and leather, hide and skin merchants, carried on at Street, Somerset, by the said vendors, as Isaac Newton and Co. The number of directors is not to be less than three nor more than seven ; the first are : J. H. Smith, C. Chancellor, and E. Hill ; qualification £200. J. H. Smith is the first managing director, with £120. per annum. Registered office, Street, Somerset.

Thomas Locker and Co., Ltd.—CAPITAL £15,000. in £1 shares. This company has been formed to acquire the business carried on by T. Locker, at Warrington, and to carry on the business of wire drawers, weavers, and workers, metal founders and workers, mechanical and electrical engineers, iron and steel converters, wood workers, cabinet makers, builders, manufacturers of hard and soft goods, miners, storekeepers, and universal providers. The subscribers to the memorandum of association are :—J. Locker, 12, Salisbury-street, Warrington, wire weaver ; T. Locker, 27, Church-street, Warrington, wire weaver ; Mrs. M. Locker, 41, Church-street, Warrington ; Miss M. Locker, 41, Church-street, Warrington ; Mrs. H. Locker, 12, Salisbury-street, Warrington ; Mrs. M. E. Locker, 27, Church-street, Warrington ; E. Lawrence, 8, Willis-street, Warrington, clerk.

State of Wyoming Syndicate, Ltd.—CAPITAL £15,000., in 13 ordinary shares of £1,000. each, and 200 deferred shares of £10. each. This company has been formed to adopt an agreement with A. E. Baines and D. D. Danziger, to acquire and work any petroleum or oil bearing lands, soda deposits and coal, iron or copper mines in Wyoming, U.S.A., to acquire a concession for a railway line from Fort Laramie to Bertherton, and to carry on the business of refiners of and dealers in petroleum and other mineral oils and their products, and dealers in mineral and vegetable substances of all kinds. The subscribers to the memorandum of association are :—J. C. Alourado, Manhattan Club, New York, gentleman ; L. H. Wilkins, Finsbury House, E,C., journalist ; J. A. Milne, A.C.A., Park House, Anerley, S.E. ; D. M. Chambers, 10, Colville-square, W., secretary ; H. A. Taylor, 49, Wool Exchange, E.C., solicitor ; P. E. Miller, 37, Navarino-road, Dalston, N.E., clerk ; W. Fuller, 20, Churchill-road, Upper Holloway, clerk. Registered office, Finsbury House, Blomfield-street, E.C.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

NDON.

ding October 21st.

Lime—

5 pks.		A. Zumbeck & Co.
—		
oo pks.		R. W. Greeff & Co.
60		Netherlands S. B. Co.
74		Little & Johnston
10 pks.		T. H Lee
16		E Catlin
12 t.		J. Harrison
1		Brasch & Rothenstein
45 pks.		J. White

Nitrate—

64 pks.		S. E. Rly. Co.

Barium Chloride—

Germany,	22 pks.	Petri Brs.
Holland,	132	,,

Barium Sulphate—

Belgium,	83 pks.	O'Hara & Hoare

Barytes—

Holland,	35 pks.	Taylor Brs.
,,	38	J. L. Lyon & Co.
,,	93	W. Harrison & Co.
,,	50	T. H. Lee
,,	50	H. Evans & Sons
,,	23	O'Hara & Hoar
Germany,	23	Page, Son, & East
,,	10	H. Lambert
,,	300	Burrell & Co.
,,	10	R. W. Greeff & Co.
,,	149	W. Harrison & Co.
,,	48	J. L. Lyon & Co.
Belgium,	160	,,

Bleaching Powder—

Germany,	£109	J. M Steel & Co.
Holland,	22 pks.	T. H. Lee
Belgium,	13	Deering & Robottom

Bones—

Portugal,	14 t.	Andrew Brs. & Co.

Borax—

Germany,	£160	Craven & Co.

Caoutchouc—

Belgium,	2 t.	17 c.	Prop. Bull Wf.
Germany,	5		,,
France,	1	7	,,
Sydney,		2	,,
Zanzibar,	1	5	L. & I. D. Jt. Co.
Straits,	13	18	,,
Rangoon,		15	,,
,,	18	1	Prop. Hay's Wf.
B. Honduras,		14	Major & Field

Carbon—

Holland,	£200	Phillips & Graves

Castor Oil—

E. Indies,	100½ cs.	Perkins & Homer
,,	22 cks.	J. Owen
France,	40 pks.	F. Boehm
,,	30 brls.	Lucas & Spencer's Wf., Ld.
Belgium,	30	Capes & Self

Caustic Potash—

Germany,	25 pks.	J. M. Steel & Co.

Caustic Soda—

France,	2 t.	W. H. Carey & Sons

Chemicals *(otherwise undescribed)*

Germany,	£11	Craven & Co.
,,	50	Argo S. S. Co.
,,	50	L. & I. D. Jt. Co.
,,	68	H. Lambert
Belgium,	120	T. Palmer
Holland,	150	Phillips & Graves
,,	30	M. Benscher
,,	15	R. W. Greeff & Co.
,,	36	Netherlands S. B. Co.

U. States, 31 J. Barber & Co
" 115 S. Lambert & Co
" 525 H. Harkness

Coal Products—
Carbolic Acid
Germany, 50 pks. J. G. Back
" 50 Hollinghurst & Co.
Pitch
France, 13 brls. H. Hunt
" 59 cs. L. & I. D. Jt. Co.
N. Russia, 200 brls. A. B. Curtis & Co.
Tar
F N Russia, 67 brls. Mordaunt Brs.

Colours—
Belgium, 8 brls. Taylor Brs.
Italy, 8 A. Laming & Co.
Holland, 3 cks. R. Baelz & Co.

Copper Sulphate—
Germany, 53 pks. Charles & Fox

Cream of Tartar—
Italy, 40 pks. W. C. Bacon & Co.
France, 5 C. Atkins & Nisbet
" 15 F. C. Devon & Co.
" 10 B. & F. Wf. Co., Ld.

Dyestuffs—
Argols
Spain, 48 pks. Thames S. T. & L. Co, Ld.
Cochineal
Canaries, 136 pks. W. M. Smith & Sons
Cutch
Straits, 400 pks. Borneo Co.
" 50 J. Swire & Sons
Rangoon, 250 Page, Son, & East
" 350 Hicks & Ashmore
" 250 Phillipps & Graves
" 250 Hoare, Wilson & Co.
" 250 G. S. N. Co.
" 250 Brown & Elmslie
Extracts
Germany, 200 pks. Fuerst Brs.
Austria, 34 Fellows, Morton & Co.
" 100 Boutcher, Mortimore & Co.
France, 550 "
" 115 Beresford & Co.
" 100 Bellamy's Wf., Ld.
U. States, 23 Van Oppen & Co.
Indigo
Belgium, 3 cs. Sawer, Sons, & Co.
" 2 L. & I. D. Jt. Co.
E. Indies, 27 chts. Wallace Brs.
Myrabolams
E. Indies, 400 pks. W. Shelcott & Sons
Naphthaline
Germany, 38 pks. Flerning's Oil & Chemical Works
Orchella
E. Indies, 4 pks. Lewis & Peat
" 3 Hoare, Wilson, & Co.
Saffron
Spain, 1 pk. Richardson, Spence & Co.
" 1 H. Rubeck
Sumac
Italy, 100 pks. Colthurst & Harding
Cyprus, 83 Dunlop Brs. & Co.
Tanners' Bark
Natal, 19 t. Bullard, King, & Co.
N. Zealand, 11 L. & I. D. Jt Co.
Adelaide, 97 Leach & Co.
Turmeric
E. Indies, 62 pks. Anderson, Weber, & Smith

Farina—
U. States, 186 pks. Taylor Brs.
Germany, 10 T. H. Lee
N. Russia, 1 Brasch & Rothenstein

Formaldehyde—
Holland, £30 R. W. Greeff & Co.

Glucose—

U. States,	500 pks.	500 c. H. J. Ellis
"	50	300 Page, Son, & East
"	50	300 A. B. Curtis & Co.
"	50	300 Union L. Co., Ld.
"	250	250 Fellows, Morton, & Co.
"	1,540	1,540 L. & I. D. Jt. Co.
"	500	500 Pierce & Conjuite
"	1,000	1,000 Bellamy's Wf., Ld.
"	1,000	1,000 Ohlenschlager Brs.
"	3,500	3,500 Pickford & Co.
"	50	294 A. E. Piggott
"	200	200 W. E. Cole
"	165	990 W. Grose & Co.
"	35	200 T. M. Duche & Sons
"	3,000	3,000 Humphery & Co.
"	4,575	5,510 R. G. Hall & Co.
"	200	200 Beresford & Co.
Germany,	12	96 M. D. Co.
France,	100	100 C. Barnard
Belgium,	33	48 T. Ronaldson & Co.

Glue—

France,	£69	Mory & Co.
"	195	Coignet & Co.
"	60	Burnett Brs. & Sons
"	30	Bennett S. S. Co.
"	70	Flageollet & Co.
"	831	T. M. Duche & Sons
"	27	Prop. Hay's Wf.
"	45	W. J. Davies & Sons
Germany,	600	Deering & Robottom
"	8	Mack & Co.
"	95	T. H Lee
"	150	M. H. Voss
"	50	Steinhoff, Sons, & Co.
"	33	Herrman, Keller, & Co.
"	18	O'Hara, Matthews, & Co.
"	37	Argo S. S. Co.
Holland,	20	A. G. Robinson & Co.
"	14	Netherlands S. B. Co.
Belgium,	13	Leach & Co.
"	300	G. E. Banes
"	776	Becker & Wagner

Glycerine—

France,	£400	H. Hill & Sons
N. Zealand,	100	"
Germany,	140	T. H. Lee
Adelaide,	225	D. & J. Fowler

Guano—
Mauritius, 830 t. Anglo-Continental Guano Works

Gutta Percha—

Straits,	10 t. 17 c.	W. Pope & Co.
"	14 12	Kleinwort, Sons & Co.
"	17	1 R. & J. Henderson
"	13	18 L. & I. D. Jt. Co.
Holland,		4 Anderson, Weber, & Smith
Germany,	1	15 Scholefield, Goodman, & Sons

Litharge—
Germany, 14 pks. H. Wallace & Co.
Holland, 44 Spies Brs. & Co.

Lysol—
Germany, £32 A & M. Zimmermann

Manure—
E. Indies, 102 t. J. Owen
" 200 Dundee, Perth, & London S Co.
" 450 A. Hunter & Co.

Molasses—

U. States,	445 cks.	2,509 c.	J. W. Cook & Co, Ld.
"	500	2,837	Ohlenschlager Brs.
"	500	2,812	J. Forsey
"	50	270	W. & W. H. Stead

Nickel Salt—
Holland, £37 H. & G. Dutfield

Ochre—
Holland, 76 pks. Phillipps & Graves
Spain, 20 A. Owen
Italy, 5 T. Ronaldson & Co.
France, 37 W. Harrison & Co.
" 87 Page, Son, & East

Paraffin Wax—
Rangoon, 1,189 bxs. H. Hill & Sons
U. States, 100 pks. "
" 26 cs. Anglo-Amer. Oil Co.
" 1,705 pks. Lon. & Til. Light C. & D. Co.

Phenacetin—
Belgium, £95 John Cockerill Line

Phosphates—
Belgium, 240 t. West & Penrose
U. States, 1 L. & I. D. Jt. Co.

Phosphorus—
Canada, £350 Langstaff, Ehrenberg, & Co.

Potassium Carbonate—
Germany, 9 t. 10 c J. M. Steel & Co.
" 5 F. Smith
" 15 Charles & Fox
" 7 Petri Brs.

Potassium Chlorate—
Sweden, 70 pks G. Boor & Co.

Potassium Muriate—
Germany, 508 pks. Bessler, Waechter, & Co.

Potassium Oxalate—
Holland, 20 pks. R. W. Greeff & Co.

Potassium Sulphate—
Germany, 508 pks. Bessler, Waechter, & Co.
Belgium, 50 Charles & Fox

Pyrites—
Spain, 800 t. Anderson, Anderson, & Co.

Red Lead—
Holland, 13 pks. J. Owen
" 17 Burrell & Co.
Germany, 7 H. Lambert
" 12 J. Barber & Co.

Rosin—
U. States, 500 brls. T. Nickels & Co.

Salicylic Acid—
Belgium, 22 pks. John Cockerill Line
Germany, 4 T. H. Lee

Salt—
Portugal, 15 t. L. & I. D. Jt. Co.

Saltpetre—
Belgium, 100 bgs. G. S. N. Co.
" 275 J. M. Steel & Co.
E. Indies, 1,027 Lucas & Spencer's Wf.
Germany, 16 cks. L. & I. D. Jt. Co.
" 26 200 kgs. P. Hecker & Co.

Soda Ash—
Belgium, 22 t. 14 c. R. Waters

Soda Crystals—
Belgium, 50 t. H. G. Brown
" 6 Leach & Co.
" 25 J. Robertson

Sodium Prussiate—
Belgium, 25 pks. J. Owen

Sodium Sulphate—
Holland, 28 pks. H. Lorenz
Germany, 29 H. Wallace & Co.
" 4 C. Tennant, Sons & Co

Starch—

Austria,	10 pks.	J. Barber & Co
"	1	A. W. Latham & Co.
"	30	J. & R. Grant
"	25	Becker & Wagner
"	50	Page, Son, & Co.
Holland,	40	Hernu, Peron, & Co.
"	150	J. R. Francis & Co.
"	2,026	Little & Johnston
"	145	G S N. Co.
"	630	A. Starck
Germany,	550	Horne & Co.
"	400	J. R. Francis & Co.
"	127	Argo S. S. Co.
Belgium,	40	T. H. Lee
"	300	Becker & Wagner
"	40	T. Ronaldson & Co.
"	26	Leach & Co.
France,	312	A. C. Hitchcock
U. States,	200	Ohlenschlager Brs.

Stearine—
France, 50 bgs. W. E. Cole
" 50 H. Hill & Sons
Belgium, 191 Hoare & Scrivener
" 127 cks. W. H. Mitchell

Strontia—
Germany, 78 pks. H. Lambert

Sulphate (Alumina)—
Holland, 25 pks. R W. Greeff & Co.
Belgium, 100 Taylor Brs.

Sulphuric Acid—
Germany, 50 pks. A. Frey & Co.

Tallow—

N.S.W.,	110 cks.	Wilson's Wf.
"	54	Hoare, Wilson, & Co.
Belgium,	2	T. Ronaldson & Co.
N. Zealand,	30	Dalgety & Co., Ld.
"	66	H. Hill & Sons
"	72	J. W. Cook & Co., Ld.
"	75	Perkins & Homer
"	134	N. M. & A. Co.
"	185	Dalgety & Co., Ld.
"	20	Brown & Elmslie
"	31	Deering & Robottom
"	8	Culverwell, Brooks, & Co.
"	150	Beresford & Co
"	245	J. W. Cook & Co, Ld
"	583	Phillipps & Graves
Holland,	7	Armour & Co.
E. Indies,	24	Culverwell, Brooks, & Co.
France,	134 bgs.	H. Hill & Sons
U. States,	45 pails	Armour & Co.
"	15 bxs.	"

Tartaric Acid—
Holland, 8 pks. Kirkpatrick, Barr, & Co.

Ultramarine—
Belgium, 10 pks. J. Harrison
Holland, 13 G. S. N. Co.

Varnish—
U. States, 53 pks. Atlantic Transport Co.
" 20 L. & I. D. Jt. Co.
Germany, 10 Cooper & Self

Verdigris—
France, 6 pks. B. & F. Wf. Co., Ld.

White Lead—
Austria, 10 pks. T. Palmer
" 20 G. Rowney & Co.
Germany, 23 Burrell & Co.
" 22 Wilkinson, Heywood & Co.
" 15 Randall Brs.
Holland, 80 "
" 112 A. & M. Zimmermann
" 32 Kerestedji & Co.
" 18 J. R. Francis & Co.
Belgium, 28 J. L. Lyon & Co.
" 47 Burrell & Co.
" 98 R. Stewart
" 12 Fisher & Co.

Wood Pulp—
Belgium, 2,138 pks. J. Harrison
Sweden, 500 Tough & Henderson
" 240 H. Raby & Mather
" 2,440 Johnsen & Jorgensen
Norway, 4,840 London Paper Mills Co.
Holland, 16 Robinson, Roberts & Co.
" 60 C. S. Lovell
Germany, 148 "
N. Russia, 70 "
" 56 Thames S. T. & L. Co., Ld.

Zinc Oxide—
Holland, 50 pks M. Ashby, Ld.
" 75 Burrell & Co.
" 500 Soundy & Sons
Belgium, 5 T. Ronaldson & Co.
U. States, 100 M. Ashby, Ld.

Zinc White—
Germany, 80 pks. M. Ashby, Ld.
Holland, 180 Spies Brs. & Co.
" 20 J. Barber & Co.

LIVERPOOL.

Week ending October 19th.

Acetic Acid—
Rotterdam, 20 balloons

Ammonia—
Antwerp, 4 dms. J. T. Fletcher & Co.
Boston, 100 cyldrs. J. Simpson & Co.

Antimony Ore—
Valparaiso, 478 sks. Kleinwort, Sons, & Co.

Asbestos—
Montreal, 1 bg.

Barytes—
Antwerp, { 50 bgs. / 184 cks.
Rotterdam, { 40 / 40 bgs.

Bones—
Alexandria, 166 t.
Coquimbo, 649 sks. A. J. Yeomans
Jaffa, 794 bgs.

Borate of Lime—
Valparaiso, 443 cs.

Caoutchouc—
Havre, 23 cs. Cunard S.S. Co.
Valparaiso, 13 bls. E. Karcher & Co.

Chemicals (*otherwise undescribed*)
Hamburg, 1 cs.

Coal Products—
Benzine
New York, 1,750 brls.
Naphtha
New York, 6,515 brls.
Pitch
Las Palmas, 1 kg.
Tar
Boston, 7 brls.

Colours—
Hamburg, 4 cs.
Rotterdam, 2 pks.

Cottonseed Oil—
New York, 260 brls.

Cream of Tartar—
Bordeaux, 70 cks.

Dyestuffs—
Argols
Oporto, 34 cks.
Cutch
Singapore, 400 bxs.

Extract
Havre, 50 cs. 33 cks. Cunard S.S Co.
Nantes, 550
New York, 200 brls. McArthur & Co.
Rotterdam, 30 cks.
Fustic Extract
Valparaiso, 5 brls. D. Midgley & Son

Sumac
Limassol, 8 bdls.

Farina—
Newfairwater, 282 bgs.

Gelatine—
Rotterdam, 8 cs.

Glucose—
New York, 100 brls.

Glue—
Antwerp, 4 cks.
Hamburg, 13 / 1 brl. / 300 bgs.
Rotterdam, 5

Glycerine—
Havre, 30 cks. Cunard S. S. Co.

Gutta Percha—
Singapore, 280 cs.
W. C. Africa, 285 bgs. Royal Niger Co.

Limestone—
Antwerp, 1 crt.

Manganese—
Rotterdam, 4 cks.

Mineral White—
Trieste, 220 bgs.

Oxide of Iron—
Montreal, 15 brls W. Lister & Sons

Paraffin Wax—
New York, 519 brls. Anglo.-Amer. Oil Co.

Phosphates—
Beaufort, S.C. 3,580 t. United Alkali Co.

Phosphorus—
Montreal, 30 cs.

Potash—
Hamburg, 45 cks.

Red Lead—
Rotterdam, 4 cks.

Rosin—
Baltimore, 250 brls.
Bordeaux, 130 cks

Saltpetre—
Hamburg, 22 kgs.

Soap—
Bari, 176 cs.
Hamburg, 37
N. Orleans, 672 brls.
New York, 300 bxs. R. J. Babbitt

Soap Stock—
Norfolk, 757 brls.

Soapstone—
Genoa, 200 bxs.

Starch—
Antwerp, 240 cs.
Hamburg, 124
Newfairwater, 85 bgs.

Stearine—
Antwerp, 28 bgs.

Tallow—
Baltimore, 300 brls. / 200 tcs.
Montreal, 150 cks. Hughes, Cook, & Co.

Tartaric Acid—
Hamburg, 4 cks.

Ultramarine—
Hamburg, 3 cs.
Rotterdam, 36 cks.

White Lead—
Antwerp, 1 ck.
Rotterdam, 20

Wood Pulp—
Boston, 64 bls. Lever Brs., Ld.
Hamburg, 80 bdls.

Zinc Oxide—
Antwerp, 2 brls. J. T. Fletcher & Co.
" 55
Rotterdam, 40

Zinc White—
Hamburg, 4 cks.

MANCHESTER.

Week ending October 21st.

Antimony Salts—
Rotterdam, 14 cks.

Barium Chloride—
Hamburg, 4 cks.
Rotterdam, 6

Barytes—
Antwerp, 20 bgs.

Castor Oil—
Antwerp, 14 brls.

Caustic Lye—
Hamburg, 20 dms.

Citric Acid—
Hamburg, 3 cks.

Coal Products—
Alizarine
Rotterdam, 63 cks. 2 cs.
Aniline Colour
Rotterdam, 25 cks.
Rouen, 1
Pitch
Rotterdam, 24 cks.

Colours—
Antwerp, 2 cks.
Rotterdam, 29 12 cs. / 20 bgs. 23 brls. / 10 bxs.

Dyestuffs—
Extract
New York, 50 brls.
Rotterdam, 10 cks.
Rouen, 11 7 cs.

Farina—
Hamburg, 10 bgs.
Rotterdam, 587 N. W. Jackson

Glue—
Antwerp, 80 bls. 32 pks.
Hamburg, 230 bgs.
Rotterdam, 5 cks. / 130 bgs.
Rouen, 59 bls. 16 cs. / 34 cks. / 20 bgs.

Lead Acetate—
Hamburg, 6 cks.
Rotterdam, 35

Limestone—
Antwerp, 2 crts. 13 cs.
Ghent, 6

Litharge—
Rotterdam, 43 cks.

Lithopone—
Rotterdam, 20 cks.

Nickel Salts—
Rotterdam. 3 cks.

Paraffin Wax—
New York, 1,174 brls.

Potash Lye—
Hamburg, 13 dms.

Potassium Muriate—
Hamburg, 40 cks.

Potassium Sulphate—
Rotterdam, 3 cks.

Pyrites—
Huelva, 1,608 t.

Sodium Nitrate—
Rotterdam, 8 cks.

Sodium Phosphate—
Rotterdam. 14 cks.

Sodium Silicate—
Rotterdam, 8 cks.

Starch—
Antwerp, 460 cs. J. T. Fletcher & Co.
" 10 bgs.
Hamburg, 140
New York, 2,452
Rotterdam, 200

Tallow—
New York. 50 hds.

Tartaric Acid—
Rotterdam. 14 cks.

Wood Pulp—
Gothenburg, 1,610 bls.

Zinc Ashes—
Antwerp, 11 cks.

Zinc Chloride—
Hamburg, 1 brl.

Zinc Oxide—
New York, 100 brls.
Rotterdam, 40

Zinc Sulphite—
Rotterdam, 2 cks.

HULL.

Week ending October 21st.

Acids—
Hamburg, 5 cks. Wilson, Sons, & Co , Ld.

Antimony—
Leghorn, 24 cks. Wilson, Sons, & Co., Ld.

Asbestos—
Genoa, 5 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.

Barytes—
Antwerp, 83 pks. Bailey & Leetham, Ld.
" 103 cks. H. F. Pudsey
Bremen, 46
" 38 Sissons Brs. & Co.
Hamburg, 20 Storry, Witty, & Co.

Boracic Acid—
Leghorn, 30 cks. Wilson, Sons, & Co., Ld.

Castor Oil—
Leghorn, 10 cs.
Marseilles, 65 pkr. Wilson, Sons, & Co., Ld.
Venice, 15 cs.

Caustic Potash—
Dunkirk, 15 dms.

Chemicals *(otherwise undescribed)*
Bremen, 2 cs. Veltmann & Co.
Hamburg, 2 pks,

Coal Products—
Alizarine
Rotterdam, 53 pks. / 1 ck. / 20 cs. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 171 pks. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 22 cks. Hull & Netherlands S. S. Co.
Pitch
Antwerp, 4 cks. Bailey & Leetham, Ld.
Rotterdam, 24 Hull & Netherlands S. S. Co.
Tar
Hamburg, 2 brls. Durose & Co.
Marseilles, 45 cks.
Stockholm, 150 brls. Wilson, Sons, & Co.. Ld.
Uleaborg, 750 J. M. Hamilton & Co.

Colours—
Antwerp, 8 cks. / 5 brls. / 38 pks. Wilson, Sons, & Co., Ld.
" 2 cs. Bailey & Leetham, Ld.
Dunkirk, 1 Wilson, Sons, & Co., Ld.
Genoa, 31 "
Rotterdam, 10 cks. / 171 pks / 16 brls. / 2 bxs. Hull & Netherlands S. S. Co.
Trieste, 13 cks.

Cream of Tartar—
Bordeaux, 3 cks.

Dyestuffs—
Extract
New York, 50 brls. Wilson, Sons, & Co., Ld.
Fustic
Trieste, 5 t. Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 4 brls. Hull & Netherlands S. S. Co.
Sumach
Palermo, 234 bgs. Wilson, Sons, & Co., Ld.
" 200
Trieste, 295 bls. "

Dyewood—
Antwerp, 30 bls. Wilson, Sons, & Co., Ld.

Farina—
Harlingen, 80 bls. Hull & Netherlands S. S. Co.
Rotterdam, 2 cks. "
" 2 Wilson, Sons, & Co., Ld.
Stettin, 648 bgs.

Glucose—
Rotterdam, 100 bgs. / 40 pks. Hull & Netherlands S. S. Co.

Glue—
Antwerp, 10 cs.
Genoa, 10 bls.
Hamburg, 30 bgs.

Glue Stock—
Bari, 32 bls. Wilson, Sons, & Co., Ld.

Glycerine—
Bordeaux, 20 dms

Limestone—
Antwerp, 2 cs.

Ochre—
Marseilles, 24 cks.

Phosphates—
Treport, 250 t.

Potash—
Antwerp, 7 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 25 pks. "

Red Lead—
Amsterdam, 7 cs. Hull & Netherlands S. S. Co.

Rosin—
Trieste, 14 pks. Wilson, Sons, & Co., Ld.

Salt—
Rotterdam, 1 ck. Hull & Netherlands S. S. Co

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons, & Co., Ld.
Hamburg, 33 cks. / 10 kgs.

Soap—
Dunkirk, 1 cs. Wilson, Sons, & Co., Ld.
Marseilles, 11 "
" 13 "
Naples, 45 "

Soda—
Amsterdam, 135 bgs. Hull & Netherlands S. S. Co.
Antwerp, 33 dms. Wilson,
100 bgs. Sons, & Co., Ld.
Ghent, 100

Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
Bremen, 1,086 pks. Veltmann & Co.
Dunkirk, 35 cs.
Ghent, 47 Wilson, Sons, & Co , Ld.
" 140
New York, 140 brls.

Stearine—
Aalesund, 25 cks. Wilson, Sons, & Co., Ld.

Sulphur—
Catania, 830 bgs. / 15 t. 10 . / 103 brls.

Talc—
Trieste, 100 bgs. Wilson, Sons, & Co., Ld.

Tallow—
Boston. 533 cks.
Dunkirk, 150 Wilson, Sons. & Co.. Ld.
Harlingen, 2 Hull & Netherlands S. S. Co.
New York, 100 tcs. Wilson, Sons, & Co., Ld.
Rotterdam. 15 "

Tartaric Acid—
Rotterdam, 12 cks. Hull & Netherlands S. S. Co.
" 2 cs.
Venice, 8 Wilson, Sons, & Co.. Ld

Turpentine—
Bordeaux, 6 cks. Wilson, Sons, & Co., Ld.

Ultramarine—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Waste Salt—
Hamburg, 300 bgs.

White Lead
Amsterdam, 29 cs. Hull & Netherlands S. S. Co.
Rotterdam, 94 cks. "

Wood Pulp—
Antwerp, 136 pks. Bailey & Leetham, Ld.
Bergen, 199 Wilson, Sons, & Co., Ld.
Boston, 1,168 rolls
Christiania, 13 cs. "
" 1,555 pcs.
Drontheim, 482 pks. "
Gothenburg, 26 "
Konigsberg, 27 bls. Bailey & Leetham, Ld.
" 67

Zinc Oxide—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co

Zinc White—
Amsterdam, 1 cs. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending October 26th.

Acetic Acid—
Rouen, 9 cks.
Asbestos—
Montreal, 672 bgs.
Barium Sulphate—
Antwerp, 300 bgs.
Barytes—
Amsterdam, 22 cks. J. Rankine & Son
Hamburg, 33
Bleach—
Hamburg, 68 cks.
Caoutchouc—
Rotterdam, 1 cs. J. Rankine & Son
Castor Oil—
Antwerp, 27 cks.
Leghorn, 30 cs.
Coal Products—
Alizarine
Rotterdam, 73 cks. J. Rankine & Son
1 brl. 2 cs.
Aniline
Amsterdam, 2 cks. J. Rankine & Son
Rotterdam, 11 cs. 21 ,,
Pitch
Bordeaux, 27 cks.
Cobalt Ore—
Rouen, 5 brls. 8 cs.
Colours—
Hamburg, 29 cks. 3 cs.
Rotterdam, 223 pks. 5 cs. 5 bxs. 40 brls. 2 cks. J. Rankine & Son
Cottonseed Oil—
New York, 300 brls.
Dyestuffs—
Cutch
Rangoon, 395 bxs. P. Henderson & Co.
Extract
Antwerp, 1 ck.
Farina—
Delfszyhl, 250 bgs. J. Rankine & Son
Glucose—
New York, 410 brls.
Glue—
Rouen, 34 cks. 40 bgs.
Glycerine—
Barcelona, 20 pks.
Oxalic Acid—
Hamburg, 7 cks.
Painters' Colours—
Antwerp, 5 cs.
Paraffin Wax—
Philadelphia, 350 brls.
Phosphates—
Antwerp, 1,010 bgs.
Potash—
Hamburg, 14 dms. 80 cks.
Rotterdam, 64 J. Rankine & Son
Soap—
Genoa, 12 cs.
Leghorn, 35
Sodium Acetate—
Antwerp, 22 cks.
Sodium Prussiate—
Antwerp, 2 cks.
Starch—
New York, 2,600 sks.
Sulphate of Alumina—
Amsterdam, 500 bgs. J. Rankine & Son
Sulphur Chloride—
Rotterdam, 17 dmjons. J. Rankine & Son
Tallow—
Philadelphia, 150 tcs.
Tartaric Acid—
Rotterdam, 24 cks. J. Rankine & Son
Trieste, 20 brls. W. Bunten & Co.
Varnish—
Antwerp, 2 cks.
Waste Salt—
Hamburg, 120 t.
White Lead—
Rotterdam, 40 pks. J. Rankine & Son
Wood Pulp—
Christiania, 1,883 bls.
Gothenburg, 509
Arundel, 120
Drammen, 1,300

TYNE.

Week ending October 21st.

Asbestos—
Hamburg, 126 bgs. Tyne S. S. Co.
Barytes—
Rotterdam, 150 bgs. Tyne S. S. Co.
Coal Products—
Pitch
Hamburg, 77 cks. Tyne S. S. Co.
Colours—
Antwerp, 4 cks.
Ghent, 4 brls Tyne S. S. Co.
Hamburg, 20 cks. ,,
Rotterdam, 2 brls. ,,
Cream of Tartar—
Rotterdam, 20 kgs. Tyne S. S. Co
Glucose—
Rotterdam, 2 cks. Tyne S. S. Co.
Limestone—
Antwerp, 10 cts.
Paint—
Christiania, 40 kgs.
Potash—
Antwerp, 1 ck.
Red Lead—
Rotterdam, 4 cks. Tyne S. S. Co.
Starch—
Antwerp, 120 cs.
Rotterdam, 60 Tyne S. S. Co.
Tallow—
Hamburg, 2 cks. Tyne S. S. Co.
White Lead—
Antwerp, 17 cks.
Wood Pulp—
Christiania, 1,645 bls. P. H. Matthiessen & Co
,, 815
Gothenburg, 16 pks.

GOOLE.

Week ending October 18th.

Alkali—
Hamburg, 10 cks.
Antimony Sulphide—
Boulogne, 4 cks.
Barytes—
Antwerp, 140 bgs. 36 cks.
Caoutchouc—
Boulogne, 24 cks.
Chemicals *(otherwise undescribed)*
Boulogne, 3 cs.
Hamburg, 7
Coal Products—
Alizarine
Rotterdam, 30 cks.
Anthracene
Boulogne, 1 ck.
Pitch
Amsterdam, 5 cks.
Colours—
Antwerp, 44 cks.
Hamburg, 3 1 cs.
Rotterdam, 526 86
Dyestuffs *(otherwise undescribed)*
Amsterdam, 1 ck. 1 cs.
Boulogne 19 41 pks.
Dyestuffs—
Extract
Hamburg, 75 bgs.
Farina—
Delfszhyl, 560 bgs.
Hamburg, 200
Glucose—
Hamburg, 117 cks.
Glue—
Antwerp, 2 cks.
Boulogne, 13 bs.
Ghent, 1 pk.
Hamburg, 1 cs.
Nickel Sulphate—
Hamburg, 1 ck.
Phosphates—
Ghent, 808 bgs.
Potash—
Antwerp, 6 cks.
Calais, 12 dms.
Dunkirk. 36
Saltpetre—
Hamburg, 27 cks.
Rotterdam, 170 bgs.
Starch—
Ghent, 66 cs.
Varnish—
Boulogne, 1 cs.
Waste Salt—
Hamburg, 700 t. 703 cks.

GRIMSBY.

Week ending October 21st.

Barytes—
Rotterdam, 100 bgs.
Caoutchouc—
Antwerp, 2 cs.
Hamburg, 4
Rotterdam, 1
Chemicals *(otherwise undescribed)*
Antwerp, 3 cks.
Hamburg, 30
Rotterdam, 2
Colours—
Antwerp, 11 cks. 117 pks.
Hamburg, 35 168
Rotterdam, 10 kgs. 13 bgs.
Dyestuffs *(otherwise undescribed)*
Dieppe, 17 cks.
Dyestuffs—
Indigo
Antwerp, 2 cks.
Starch—
Antwerp, 90 cs.
Varnish—
Antwerp, 14 pks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending October 25th.

Alkali—
Auckland, 10 t. 2 c £37
Ammonia—
B. Ayres, 4 t. £290
E. London, 4 cs. 12
Ammonia (Anhydrous)—
Cologne, 46 cylrs. £115
Ammonium Carbonate—
Launceston, 5 c. £13
Demerara, 5 12
Hiogo, 3 t. 15 105
Yokohama, 5 140
Cologne, 4 4 18
Calcutta, 8 cs. 1
Hamburg, 14 cks. 12 pks. 77
Amsterdam, 40 kgs. 61
Ammonium Sulphate—
Ostend, 20 t. 5 c. £230
Bremen, 50 565
Valencia, 110 1,210
Alicante, 81 900
Dunkirk, 131 13 1,465
Hamburg, 50 570
Gandia, 232 17 2,588
Havre, 64 710
Demerara, 43 475
Arsenic—
Karachi, 13 c. £14
Bleaching Powder—
Pt. Elizabeth, 10 c. £5
Borax—
Durban, 10 cs. £11
Hamburg, 10 60
Pt. Elizabeth, 10 c. 15
Normanton, 1 t. 18
Calcium Chloride—
Durban, 2 t 19 c. £12
Carbonic Acid Gas—
Channel Is., 26 tubes £10
Caustic Soda—
Napier, 4 t. 19 c. £34
E. London, 3 1 38
Pt. Elizabeth, 2 14 55
Chemicals *(otherwise undescribed)*
Colombo, 1 cs. £16
Channel Is., 4 pks. 24
Perth, 73 38
Calcutta, 6 36
Hamburg, 3 40
Cossack, 6 19
Brisbane, 76 173
Genoa, 2 16
Toronto, 5 37
Amsterdam, 5 14
Melbourne, 9 98 232
B. Ayres, 6 24
Pt. Elizabeth, 13 28
New York, 50 10 brls. 109
Antwerp, 16 cks. 235
Sydney, 12 20 75
Constantinople, 1.8 800
Salonica, 7 34
Paris, 32 10 67
Karachi, 102 18 170
Chloride of Lime—
Durban, 10 c. £5
Citric Acid—
Bombay, 1 c. £11
Pt. Elizabeth, 2 20
Copenhagen, 2 15
Coal Products—
Alizarine
Bombay, 25 cks. £60
St. Petersburg, 3 cs. 150
Timaru, 4 pks. 23
Lyttelton, 8 148
Bombay, 20 35
Aniline Oil
New York, 25 dms. £800
Benzol
Treport, 30 cks. £49
Carbolic Acid
Launceston, 2 cs. £9
Sydney, 20 62
Hamburg, 30 50
Treport, 30 tins 55
Cape Town, 25 cks. 65
Antwerp, 10 brdons. 17
Creosote
Bremen, 6 cks. £9
Mobile, 3,500 brls. 2,844
Naphtha
Melbourne, 10 dms. £6
Naphthaline
Hamburg, 3 cks. £31
Philadelphia, 1,284 bgs. 410
Pitch
Boston, 500 cks. £280
Hamburg, 32 28 brls. 186
Copenhagen, 30 t. 71
St. Nazaire, 1,500 1,500
Dunkirk, 150 232
Tar
Marseilles, 6 cks. £12
Calcutta, 9 dms. 6
Rotterdam, 20 brls. 20
Pt. Elizabeth, 325 20
Hamburg 400 187
Tar Oil
Pt. Elizabeth, 50 cks. £35
Toluol
Boulogne, 50 brls. £140
Hamburg, 110 cks 318
Cologne, 25 dms. 238
Copper Sulphate—
Paris, 21 t. 14 c. £431
Tampico, 12 1 170
Rouen, 5 1 180
Amsterdam, 2 5 31
Cream of Tartar—
Sydney, 1 t. £75
Newcastle, 1 5 c. 35
Rockhampton, 2 151
Pt. Elizabeth, 10 kgs. 35

Disinfectants—
Montreal, 25 pks. £25
Rangoon, 4 cr. 34
Durban, 90 22
Brisbane, 8 72
Pt. Elizabeth, 90 30
Cape Town, 21 278 120
Calcutta, 5 20
Colombo, 15 20
Sydney, 31 20
Chinde, 17 12

Dried Blood—
Mauritius, 50 t. £454

Glycerine—
Newport News, 19 t 16 c. 5610
New York, 14 5 445

Manure—
Palermo, 110 t. £500
Valencia, 50 13 c. 360
Hamburg, 485 14 4,226
Jersey, 187 531

Nitric Acid—
Channel Is, 14 crbys. £21

Phosphoric Acid—
Durban, 5 cks. £18

Phosphorus—
Sydney, 10 cs. £80

Potassium Bichromate—
Lyttelton, 16 c. £23

Potassium Cyanide—
La Pazvia, 100 cs. £560
Normanton, 10 110
Brisbane, 10 56
New York, 260 1,350
Delagoa Bay, 4 t. 12 c. 411
Townsville, 5 548
Fremantle, 1 8 138
Auckland, 6 665

Potassium Prussiate—
Montreal, 1 t. 1 c. £70

Salammoniac—
Salonica, 2 t. 6 c. £69

Salt Cake—
Ghent, 70 t. £96

Saltpetre—
Auckland, 10 c. £10
Santos, 2 t. 1 34
Lisbon, 5 10 104
Rockhampton, 10 10
Sydney, 4 87

Sheep Dip—
Launceston, 15 pks £35
Invercargill, 15 cks. 59
Pt. Elizabeth, 3 t. 6 c. 100
Melbourne, 10 brls. 10

Soda—
Quebec, 3 t. 4 c. £15
Teneriffe, 16 9

Sodium Bicarbonate—
Pt. Elizabeth, 1 t £14
Paris, 4 5 91
Bombay, 1 8
Durban, 8 5
Rockhampton, 2 13

Sodium Bisulphite
Lyttelton, 3 t. 12 c. £20

Strychnine—
Launceston, 1 cs. £10

Sulphur—
Trinidad, 1 t. 2 c. £9

Sulphuric Acid—
Boca, 7 c. £12

Superphosphates—
Cape Town, 25 t. £61
Durban, 13 8 c. 40
Colombo, 40 1,6

Tartaric Acid—
Wellington, 2 c. £11
Newcastle, 5 30
Karachi, 5 30
Pt Elizabeth, 2 14

LIVERPOOL.

Week ending October 25th.

Acetic Acid—
Dunedin, 1 t. 1 c. £16
Copenhagen, 5 16 116
Lisbon, 4 cks. 7

Aluminous Cake—
Melbourne, 11 t. 12 c. 3 q. £33
Calcutta, 26 6 89

Ammonia—
Rangoon, 10 cs. £26
Colombo, 493 lbs. 11 cyldrs. 78

Ammonium Carbonate—
Antwerp, 1 t. 5 c. £38
Valencia, 5 9
Marseilles, 1 12 62
Oporto, 1 29
Venice, 17 24
Genoa, 1 10 42
Carril, 10 17

Ammonium Muriate—
Philadelphia, 20 t. 2 c. 2 q £433
Barcelona, 1 8 29
Sydney, 11 4 203

Ammonium Sulphate—
Huelva, 5 t. £60
Demerara, 209 5 c. 2,325
Boston, 24 10 270
Bordeaux, 20 11 245
St. Pierre, 1 5 14
Cartagena, 25 6 3 q. 290
Gd. Canary, 2 20
Philadelphia, 51 575
Bordeaux, 10 11 110
New York, 118 10 1,328
Seville, 3 2 36
Teneriffe, 11 7 133
Malaga, 50 661
Barbadoes, 50 10 630
Colombo, 4 18 81
Valencia, 316 17 3 3,704
Las Palmas, 25 287

Arsenic—
Marseilles, 5 t. 9 c. 2 q. £107

Barium Binoxide—
Osaka, 1 t. 10 c. £60

Barium Sulphate—
Santos, 4 t. 2 c. £9

Basic Slag—
New York, 4 t. £12
Nantes, 98 10 c. 148
Bordeaux, 619 7 1 q. 989
Granville, 1473 360

Bleaching Powder—
Amsterdam, 115 cks.
Antwerp, 50
Bombay, 2 cs.
Boston, 726
B. Ayres, 10
Cambrai, 18
E. Pepperel, 47
Gutujewsky, 55
Havana, 10
Montreal, 137
Naples, 36
New York, 799
Norrkoping, 142
Toronto, 15 brls.

Boracic Acid—
Melbourne, 2 t. £53

Borax—
Dunedin, 10 c. £8
Stettin, 16 t. 3 q 275
Danzig, 9 3 8
Hamburg, 6 7 3 105
Antwerp, 5 2 1 86
Algoa Bay, 6 5
Perth, W.A., 1 16
Malta, 6 2 6
Sydney, 1 17
Manzanillo, 10 2 8
Rotterdam, 5 7 89
Tampico, 1 16
Alexandria, 10 brls. 12

Calcium Chloride
M. Video, 5 t. 7 c. £12
Sydney, 24 19 56
Genoa, 1 6 3
Montreal, 60 4 133

Carbonic Acid Gas—
Cape Town, 1 c. 2 q. £5

Castor Oil—
Coronel, 4 dms. —

Caustic Potash—
Melbourne, 2 t. 2 c. £61
Sydney, 5 6

Caustic Soda—
Adelaide, 85dms. 52 cks.
Alexandria, 73
Alicante, 25 bgs.
Amsterdam, 266
Antwerp, 319
Barcelona, 420
Bari, 83
Bilbao, 18
Bombay, 25
Boston, 150
B. Ayres, 110
Catania, 48
Christchurch, 20
Christiania, 12
Copenhagen, 101
Dunedin, 60
Galatz, 778
Gefle, 9 22 53
Genoa, 330
Ghent, 17
Hamburg, 106
Havre, 4
La Canee, 20
La Guayra, 40
Leghorn, 39
Lisbon, 34
Malaga, 20
Manila, 12
Marseilles, 14
Mauritius, 10
Melbourne, 72 55 pks.
M Video, 25
Montreal, 251
Naples, 39
N. Orleans, 50 20 cs.
New York, 175
Oporto, 45
Padang, 50
Para, 15
Parahyba, 15
Pernambuco, 5 t. 5 c. 21 bgs.
Perth, 16 dms.
Philadelphia, 5 cks
Pt. Natal, 60 bxs.
Quebec, 81
Rio de Janeiro, 20
Rangoon, 31
Rouen 57
Stockholm, 30
St. Stephens, 100
Sarnia, 55
Savanilla, 15
Seville, 143 60 brls.
Singapore, 72 40 drs.
St. John's, Nfd. 10
Sydney, 18
Toronto, 35
Trieste, 85
Valparaiso, 6
Venice, 58
Vera Cruz, 85
Woodstock, 50
Yokohama, 10

Chemicals *(otherwise undescribed)*
Naples, 5 t. 18 c. £30
New York, 4 15 120
Rio de Janeiro, 7 700
Havana, 7 18 25
Brisbane, 1 10 25
Adelaide, 10 8
San Francisco, 40 14 2 q. 175
Callao, 3 6 1 16
Lisbon, 2 10
Alexandretta, 13 10 67
Leghorn, 2 4 10
Christiania, 10 8
Delagoa Bay, 1 17
Galatz, 16 13 82
Antwerp, 3 1 48
Valencia, 1 10 24
Guayaquil, 1 2 5
Lisbon, 10 8 21
Vigo, 1 2 6
Philadelphia, 14 11 366
Madras, 14 6 5 brls. 104
Alexandria, 20 65
Sydney, 32 6 80 kgs. 298
Hamburg, 8 cks. 40
Palermo, 4 34

China Clay—
Baltimore, 920 cks.
Bombay, 189
Boston, 1,746
Johnsonburg, 200
Montreal, 90
Naples, 40
New York, 300 150 t.
Pernambuco, 150

Citric Acid—
Vigo, 4 c. £15

Coal Products
Aniline Colours
Genoa, 1 cs.
New York, 39 cks. 9 kgs.
Aniline Oil
Barcelona, 36 cks. 14 kgs.
Rouen, 5 dms.
Aniline Salt
Barcelona, 7 kgs
Genoa, 5 cks.
Lisbon, 2 puns
Vera Cruz, 20
Carbolic Acid
Rouen, 8 t. 9 c. £198
Barcelona, 1 5 86
New York, 4 10 323
Halifax, 4 2 q. 21
Yokohama, 6 4 307
Creosote
Antwerp, 25 cks.
Creosote Oil
Montreal, 23 brls.
Naphtha
Sydney, 50 dms.
Pitch
Rouen, 8 cks.
St. Nazaire, 1,070 t.
Tounay Charente, 295
Tar
B. Ayres, 4 cks.
Conakry, 24 brls.
Demerara, 30
Ibrail, 20
Lagos, 10
Philadelphia, 100
Sulina, 37
Savanilla, 48
St. John's, Nfd. 49½

Copper Sulphate—
Bordeaux, 14 t 18 c. £360
Naples, 10 12 253
Stockholm, 3 71
Montreal, 17 3 q. 92
Galatz, 5 131
Melbourne, 5 125
Palermo, 7 4 161
Libau, 1 2 22
Catania, 12 8 2 294
Vigo, 10 2 258

Disinfectants—
Rangoon, 28 cs. £203
Oporto, 5 13
Melbourne, 100 kgs. —
Dunedin, 1 t. 11 c. 1 q. 19
Algoa Bay, 4 22

Dried Blood—
Las Palmas, 10 t. 3 c. 1 q. £84
Teneriffe, 2 15

Glycerine—
Rotterdam, 4 t. 14 c. 1 q. £175
Montreal, 11 10 3 469
Oporto, 10 3 90
Havana, 12 2 25
Sydney, 1 49
Barcelona, 1 52
Victoria, 23 2 870
Yokohama, 5 300

Guano—
Malaga, 49 t. 14 c. £390

Manure—
Gd. Canary, 10 t. £78
Stockholm, 10 1 c. 1 q. 45
Teneriffe, 20 110

Paint—
Alexandria, 180 kgs. 84 dms.
Algoa Bay, 2 cks.
Antwerp, 49 1
Arroya, 60
B. Ayres, 4
Beira, 2 cs.
Calcutta, 40 dms.
Constantinople, 50
Genoa, 58 pks.
Gibraltar, 66
Gd. Bassa, 70
Hamburg, 12 8 cks. 3 brls.
Havana, 1
Jeremie, 3 hhds.
Malta, 1 cs.
Manaos, 9 cks.
Maranham, 17
Nassau, 145 1
Opobo, 10
Panama, 10 cs.
St. John's, Nfd. 1 460 pks.
St. Thomas, 50
San Juan, 27
Sierra Leone, 254
Tamatave, 5 cks.
Singapore, 80
Valparaiso, 271

Painters Colours—
Bahia, 70 kgs.
B. Ayres, 45 cs. 15 cks.
Callao, 40
Guantanamo, 6 brls.
M. Video, 20
Montreal, 1
Nassau, 10 1 cs. 17 dms.
New York, 2
Para, 10
Pernambuco, 20 brls.
Valparaiso, 50 48 320 pks.
Vera Cruz, 1 ck.

Paraffin Wax—
Boston, 30 cs.
Lisbon, 20 bgs.
Patras, 20

Pearl Ash—
B. Ayres, 9 c. 3 q. £9

Phosphates—
Nantes, 34 t. 2 c. £166

Phosphoric Acid—
Demerara, 1 t. 5 c. £22

Phosphorus—
Santiago de Cuba, 1 c. 1 q. £13

Phosphorus (Amorph.)—
Montreal, 2 cs. £24

Potassium Bichromate—
Oporto, 13 cks. £23
Montreal, 36 t. 12 c. 3 q. 1,166
Potassium Carbonate—
New York, 17 t. 15 c. £311
Potassium Chlorate—
Amsterdam, 5 c. £8
B. Ayres, 10 cks. 16
Boston, 5 t 152
Copenhagen, 6 5 178
Gutujewsky, 75 2,365
New York, 7 10 230
Odessa, 1 10 45
Pernambuco, 8 17
Randers, 2 10 76
Rotterdam, 5 161
Sydney, 2 62
Potassium Nitrate—
Gd. Canary, 5 t. 6 c. 3 q. £150
Potassium Prussiate—
Genoa, 3 t. 3 c. 2 q. £223
Salammoniac—
Mersyne, 5 c. 3 q. £10
Piræus, 10 17
Vigo, 4 7
Salt—
Antwerp, 190 t.
Appam, 5
Benin, 31
Belize, 54 9 c.
Boston, 310
B. Ayres, 30
Calcutta, 4 985
Chicago, 114 18
Christiania, 15
Conakry, 69 13
Demerara, 104 6
Dubreka, 50 11
Galveston, 200
Ghent, 677 10
Isles de los, 100 9
Jersey, 16
Malta, 15
Mauritius, 300
Montreal, 422
N. Orleans, 270
New York, 379 12
Opobo, 25
Para, 856 11
Pt. Elizabeth, 8 19
Rosario, 13 8 cs.
Rotterdam, 113
San Francisco, 75 18
Sassandra, 12 10
Trinidad, 30 7
Sierra Leone, 110
Vancouver, 70
Salt Cake—
Hong Kong, 3 t. £8
Saltpetre—
Para, 2 t. 10 c. £52
Parahyba, 5 3 q. 6
Sheep Dip—
B. Ayres, 2,550 dms. 5 t. 12 c. 2 q. £994
Buenaventura, 1 5 41
New York, 2 4 33
M. Video, 8 18 2 250
Melbourne, 150 dms. 3 tnks. 25 cks —
Soap—
Accra, 250 bxs.
Akassa, 22 72 tins
Alexandria, 206 70 cs.
Algoa Bay, 2,695
Bangkok, 20
Barbadoes, 350
Barcelona, 2
Batanga, 50
Beira, 78
Belein, 637
Bluefields, 300
Bombay, 244 48
Brass, 560 bgs.
B. Ayres, 38
Burutu, 50
Cairo, 60 bxs.
Calcutta, 34
Callao, 2
Canaria, 920
Cape Town, 1,600
Christiania, 205 10 bdls.
Colon, 500
Constantinople, 50
Curacao, 25
Demerara, 184
Durban, 100
Dubreka, 50
Genoa, 125
Gibraltar, 335
Half Jack, 107
Havre, 50
Hong Kong, 25
Honolulu, 150
Iquitos, 80
Jersey, 10
Karachi, 1,025 51
Kotonou, 102
Lagos, 220 40 dms.
Malta, 60
Manaos, 200
Mannheim, 1,776
Melilla, 250
Montego Bay, 200
Montreal, 18 kgs.
New York, 41
Old Calabar, 112 bxs.
Ottawa, 600
Patras, 15 pks.
Pt. Elizabeth, 1,139
Pincipulca, 90
Rangoon, 30
R. Norez, 75
Rotterdam, 500
Salonica, 250
San Luis Potosi, 1
Shanghai, 2,374
Sierra Leone, 91
St. Kitt's, 160
St. John's, N'fd., 95
Sydney, 1,000
Surinam, 51
Talcahuano, 10
Therezina, 30
Teneriffe, 825
Trinidad, 500
Trieste, 3
Truxi lo, 100 bdls.
Valparaiso, 225 3 50 dms.
Soda Ash—
Bombay 25 kgs. 20 cks.
Boston, 26 tcs. 80 bgs. 127
B. Ayres, 100 bls. 187
Havana, 4
Hong Kong, 73
Kingston, Jam., 171
Lyttelton, 41
Magog, 20
Maranham, 50 brls.
Melbourne, 293
Montreal, 100 bgs. 194
New York, 1,340 144 tcs. 13
Oporto, 10
Patras, 15 brls.
Philadelphia, 600 15
Piræus, 85
Rio G. do Sul, 357
Salonica, 60
San Sebastian, 100
Toronto, 100 22
Turin, 102
Yokohama, 100
Soda Crystals—
Alexandria, 50 brls.
Calcutta, 30 4 cks.
Huntsville, 67 kgs.
Gibraltar, 40 50
Iquique, 50
M. Video, 10
Montreal, 100 100 bgs. 525 pks.
Palermo, 50
New York, 100 kgs. 140 cks.
Valparaiso, 14
Sodium Bicarbonate—
Algoa Bay, 80 kgs.
Antwerp, 50
Barcelona, 175 7 cks.
Brisbane, 370
Calcutta, 20 100 brls.
Christchurch, 100 bgs.
Dunedin, 28 kgs.
Durango, 8 brls.
Gutujewsky, 75
Hamilton, 250 30
Invercargill, 60
Kobe, 250
Libau, 200
London, 25 bgs. 275 kgs. 25
Malta, 48
Melbourne, 950
M. Video, 50
Nagasaki, 100
Napier, 40
Newfairwater, 100 pks.
Odessa, 150 dms.
Palermo, 110
Pt. Elizabeth, 14
Pt. Natal, 40
San Sebastian, 16
Santos, 50
Singapore, 7 cks.
Syra, 8
Tarragona, 70
Toronto, 60 bgs. 275 kgs.
Varna, 50
Vera Cruz, 19
Winnipeg, 67
Yokohama, 300
Sodium Carbonate—
Montreal, 280 brls.
Sodium Chlorate—
Gutujewsky, 320 kgs.
Sodium Hyposulphite—
Montreal, 61 cks.
Sodium Naphthionate—
New York, 15 cks.
Sodium Nitrate—
Antwerp, 4 cks.
Gd. Canary, 65 bgs.
Sodium Silicate—
Sydney, 14 dms.
Sodium Sulphate—
Montreal, 39 cks.
Starch—
Dunedin, 40 cs.
Sulphur—
Boston, 320 t. 5 c. £1,363
Montreal, 499 4 2,183
Vancouver, 2 3 q. 13
Victoria, B. C., 1 9 1 10
Sulphuric Acid—
Natal, £10
Pernambuco, 11 c. 8
Valparaiso, 250 g. 50 cs. 38
Superphosphates—
Adelaide, 2,000 t. £5,650
Bordeaux, 49 4 c. 86
Cape Town, 2 12 7
Gandia, 25 1 3 q. 63
Gd. Canary, 10 35
Hobart, 150 433
Launceston, 25 72
Melbourne, 20 58
Nantes, 246 8 2 464
Teneriffe, 54 157
Valencia, 110 4 2 242
Varnish—
B. Ayres, 26 cs.
St. John's, N'fd, 4 bxs.
Seville, 6 cks.
White Lead—
Bahia, 5 brls.
Calcutta, 400 kgs.
Mexico City, 8 c.
Zinc Chloride—
Baltimore, 25 t. 10 c. 3 q. £384
Bombay, 3 1 2 47

MANCHESTER.

Week ending October 25th.

Alum—
Susa, 10 brls.
Tunis, 9
Ammonium Carbonate—
Montreal, 40 kgs.
Antimony—
Malta, 2 kgs.
Baryta—
Malta, 2 kgs.
Bleaching Powder—
Sherbrooke, 75 cks.
Caustic Soda—
Monastier, 5 dms.
Susa, 10
Tunis, 20
Chalk—
Rouen, 37 cks.
Chemicals (*otherwise undescribed*)
Bombay, 100 brls.
Hamburg, 28 cks.
Montreal, 2 105 brls. 54½ tcs. 36 kgs.
Coal Products—
Aniline Oil
Rotterdam, 6 brls.
Rouen, 7 dms.
Aniline Salt
Alexandria, 10 cs.
Carbolic Acid
Rouen, 3 cks. 162 btls.
Pitch
Antwerp, £1,070
Aviles, 499 t. 10 c.
Toluol
Germany, 20 dms.
Colours—
Antwerp, 4 cks.
Copperas—
Alexandria, 138 brls.
Dyestuffs—
Extract
Antwerp, 1 ck.
Gamma Acid—
Hamburg, 7 cks.
Glue—
Germany, 6 cks.
Ghent, 6
Rotterdam, 16
Glycerine—
Toronto, 80 cs.
Linseed Oil—
Alexandria, 10 brls.
Beyrout, 20
Paint—
Alexandretta, 5 kgs.
Chatham, N.B., 1 ck.
Painters' Colours—
Larnaca, 2 kgs. 1 ck. 1 brl.
Potassium Bicarbonate—
Alexandretta, 10 kgs.
Potassium Nitrate—
Malta, 1 kg.
Salammoniac—
Susa, 2 cks.
Tunis, 2 brls.
Salt—
Montreal, 6,150 sks.
Soap—
Alexandria, 90 bxs.
Soda Crystals—
Alexandria, 100 brls.
Susa, 10
Sodium Arseniate—
Rouen, 9 cks.
Sodium Naphthionate—
Switzerland, 30 cks.
Tallow—
Bombay, 41 brls.
Rotterdam, 27 cks.
Tin Crystals—
Montreal, 3 cks.
Turpentine—
Beyrout, 1 brl.
Varnish—
Bombay, 52 dms.

GLASGOW.

Week ending October 26th.

Ammonium Carbonate—
Christiania, £22
Ammonium Sulphate—
Amsterdam, 35 t. 3 c.
Barcelona, 25 6
Bayonne, 10 6 1 q.
Bordeaux, 5 1
Hamburg, 50 14
Italy, 75 18
Riga, 30 15
Rotterdam, 50 14 3
Valencia, 344 2 2
Bleaching Powder—
Sydney, 9 t. 19 c. 3 q.
Boracic Acid—
Canada, £41
Yokohama, 123
Borax—
Canada, a qty.
Sydney, £55
Castor Oil—
Adelaide, £49
Santos, 2 t. 11 c. 3 q.
Sydney, 14
Chalk—
New York, 1,230 t.
Chemicals (*otherwise unaescribed*)
Rangoon, £335
Rotterdam, 550
Sydney, 29
Coal Products—
Benzine
Bordeaux, £345
Carbolic Acid
Brisbane, £60
Creosote Oil
Bordeaux, £2,725
Naphtha
Bordeaux, £106
Melbourne, 24
St. Nazaire, 19 brls.
Pitch
Canada, £155
Dieppe, 1,080 t. 7 c.
Rouen, 40
Tar
Bergen, £21
Canada, 33
Italy, 100
Rangoon, 58
Riga, 733

Tar and Pitch
Canada, £314
Tar Oil
Hamburg, £75
Colours—
Christiania, 2 t. 15 c.
Cyanide—
U.S.A., £448
Dextrine—
U.S.A., £70
Dyestuffs *(otherwise undes.)*—
Barcelona, £74
Dyestuffs—
Extract
Canada, £20
Christiania, 10 c.
Victoria, 41 13s.
Quebracho Extract
Canada, £132
Sumach Extract
Spain, £122
Farina—
Algoa Bay, £26
Rio de Janeiro, 10 t. 17 c.
Gelatine—
Philadelphia, £209
Gutta Percha—
Rotterdam, £13
Lead Nitrate—
Canada, £100
Linseed Oil—
Algoa Bay, 1 t. 3 c. 1 q.
Kingston, 9 6 3
Manganese—
Italy, £20
Manganese (Recovered)—
Rotterdam, £75
Manure—
Genoa, 98 t. 10 c. 2 q.
Palermo, 50 4 3
Paint—
Algoa Bay, £38
Brisbane, 426
Canada, 25
Macassar, 49 10s.
Rangoon, 436 16
Yokohama, 31
Painters' Colours—
Hong Kong, £154 10s.
Melbourne, 326
Nagasaki, 175
Natal, 38
Pt. Elizabeth, 56
St. John's N'fd., 24
Paraffin Wax—
Barcelona, £995
Bergen, 20
Bordeaux, 94
Genoa, 636
Italy, 1,027
Palermo, 30
Paris, 29
Rio de Janeiro, 175
Sicily, 27
Singapore, 32
Potassium Bichromate—
Antwerp, £68
Barcelona, 276
Christiania, 11
Genoa, 5 t. 8 c. 3 q.
Melbourne, £65
Paris, 15 13 3 q.
Philadelphia, 12 3
Rouen, 14 10 3
Rotterdam, £116
Yokohama, 5 4 2 q.
Potassium Muriate—
Valencia, 50 t.
Pulp Acid—
Rangoon, £22
Red Lead—
Brisbane, £33
Hong Kong, 65
Salt—
Saigon, 2 t. 2 c. 2 q.
Sydney, 11 8 2
Soap—
Algoa Bay, 2 t. 4 c. 2 q.
Durban, 5 11 2
Rangoon, 40
Shanghai, £45
Sodium Bichromate—
Genoa, 5 c. 3 c. 1 q.
Rouen, 10 13
Starch—
Rio de Janeiro, 15 t. 2 c. 2 q.
Rotterdam, £40
Tallow—
Italy, 10 t. 1 q.
Riga, 10 18 c.

Tallow and Stearine—
Algoa Bay, £20
Varnish—
Rangoon, £55 11s.
White Lead—
Brisbane, £84
Bundaberg, 57
Durban, 45
Yellow Prussiate—
Barcelona, 8,400 lbs.

HULL.

Week ending October 21st.

Alkali—
St. Petersburg, 65 pks.
Ammonium Sulphate—
Palermo, 150 bgs.
Venice, 200
Caustic Soda—
Riga, 21 cks. 114 dms.
Chemicals *(otherwise undescribed)*
Abo, 40 cks.
Amsterdam, 76
Antwerp, 36 2 cs.
Christiania, 19 3 2,448 slbs.
Copenhagen, 40 6
Drontheim, 1
Gothenburg, 2 6 370
Hamburg, 17 225 30 pks.
Riga, 21 590
Rotterdam, 40 84
Stettin, 21 5
St. Petersburg, 3
Stavanger, 1
Venice, 10
Wasa, 15
Coal Products—
Pitch
Antwerp, 234 t.
Dunkirk, 226
Wasa, 50 cks.
Tar
Abo, 9 cks.
Antwerp, 2
Copenhagen, 10
Drontheim, 5
Riga, 20
Cottonseed Oil—
Amsterdam, 17 t. 16 c.
Antwerp, 56 12
Christiania, 7
Drontheim, 1 14
Ghent, 10 5
Gothenburg, 2 10
Hamburg, 3 13
Rotterdam, 5 5
Stavanger, 1 5
Stettin, 19 16
Dyestuffs *(otherwise undescribed)*
Christiania, 12 pks.
Hamburg, 25 cks.
Linseed Oil—
Bergen, 6 t. 6 c.
Bremen, 7
Christiania, 5 7
Copenhagen, 2 13
Drontheim, 5 15
Ghent, 7
Gothenburg, 4
Hamburg, 4 12
Rotterdam, 10
Stavanger, 1 13
Manure—
Dunkirk, 43 t.
Stettin, 201
Mineral White—
Christiania, 20 bgs.
Paint—
Abo, 1 ck.
Stockholm, 8 cs.
Painters' Colours—
Amsterdam, 4 cks.
Antwerp, { 42 252 pks. 171 dms.
Bremen, 40 7 cs. 50
Christiania, 2 15
Copenhagen, 16 1 25
Drontheim, 20
Ghent, 3
Gothenburg, { 7 52 31 pks.
Hamburg, 21 1 2
Palermo, 19 dms.
Riga 2
Rotterdam, 6 207 pks.
Rouen, 10
Stettin, 13
St. Petersburg, 1 4 dms.
Venice, 44
Salt—
St. Petersburg, 20 t.

Soap—
Amsterdam, 103 cs.
Bergen, 1
Stavanger, 2
Starch—
Amsterdam, 2 cs.
Tallow—
Stockholm, 9 cks.
Turpentine—
Rotterdam, 1 ck.
Varnish—
Bremen, 1 dm.
Ghent, 1 cs.
Gothenburg. 2
Rotterdam, 6 cks.
Stettin, 10
Stockholm, 3 4
Waste Salt—
Amsterdam, 20 brls.

TYNE.

Week ending October 21st.

Alkali—
Amsterdam, 44 t. 15 c.
Copenhagen, 1 15 2 q.
Rotterdam, 5 6 1
Hamburg, 1 cs.
Alumina Sulphate—
Rouen, 27 t.
Ammonia—
Stockholm, 1 t. 1 c.
Antimony—
Copenhagen, 5 c.
Genoa, 5 t. 6 1 q.
Hamburg, 7
Montreal, 1
Rotterdam, 2 10
Arsenic—
Messina, 1 t. 1 c. 2 q.
Barium—
Genoa, 5 c. 2 q.
Leghorn, 10 t. 17 1
Naples, 3 5 1
Barium Binoxide—
Antwerp, 10 t. 16 c.
Rouen. 43 9 1 q.
Blanc Fixe—
Montreal, 1 t. 13 c. 3 q.
Bleaching Powder—
Amsterdam, 37 t. 15 c. 3 q.
Antwerp, 19 18 2
Bergen, 10 3
Christiania, 45 11
Gothenburg, 14 19 3
Hamburg, 36 17 3
Castor Oil—
Montreal, 16 t. 2 c.
Caustic Soda—
Amsterdam, 10 t.
Antwerp, 32 4 c. 1 q.
Copenhagen, 4 8 2
Gothenburg, 10 3
Hamburg, 21 4 1
Stockholm, 4 18 2
Chemicals *(otherwise undescribed)*
Genoa, 1 t. 3 q.
Montreal, 43
Coal Products—
Anthracene
Rotterdam, 68 t. 14 c.
Carbolic Acid
Antwerp, 6 tins
Tar
Genoa, 1 t. 16 c.
Colours—
Genoa, 11 c.
Fluor Spar—
Gothenburg, 52 t.
Linseed Oil—
Antwerp, 2 c. 2 q.
Litharge—
Amsterdam, 4 cks. 5 c. 2 q
Antwerp, 4
Montreal, 1 t. 8 2
Stockholm, 10 14 1
Magnesia—
Copenhagen, 9 c. 3 q.
Marionopol, 26 t. 17 1
Odessa. 12
Magnesium Carbonate—
Stockholm, 1 t. 6 c. 1 q.
Manganese—
Bilbao, 50 t.
Montreal, 2 3 c.
Orange Mineral—
Montreal, 5 t. 1 c. 1 q.
Paint—
Amsterdam, 15 dms.
Antwerp, { 4 kgs. 5 t. 1 c.
Christiania, 1 ck. 10
Copenhagen, 7 2 q.
Painters' Colours—
Antwerp, 9 c.
Hamburg, 49 kgs.
Red Lead—
Amsterdam, { 4 cks. 6 t. 4 c. 1 q.
Aarhuus, 1 7 2
Antwerp, { 4 cks. 2 t. 4 2
Bergen, 2 14 2
Christiania, 5 cks.
Copenhagen, 6 t. 3
Montreal, 14 17
Nakskov, 1 1
Stockholm, 21 3
Silicon—
Bilbao, 12 t.
Soap—
Antwerp, 1 kg. 3 c.
Hamburg, 1 1 q.
Soda—
Amsterdam, 41 t. 19 c. 2 q.
Gefle, 14 19 1
Ghent, 5 2 3
Rotterdam, 51 5
Soda Ash—
Gothenburg, 80 t. 9 c. 2 q.
Stockholm, 100 10 3
Sodium Sulphate—
Gothenburg, 230 t.
Sulphur—
Ghent, 7 t. 1 c. 1 q.
Gothenburg, 100
Sannesund, 350
Tallow—
Hamburg, 4 c. 2 q.
Tannate of Soda—
Antwerp, 8 c.
Varnish—
Antwerp, 1 dm. 1 q.
White Lead—
Bergen, 2 t. 1 c. 2 q.
Montreal, 149 15
Stockholm, 6 5 1

GOOLE.

Week ending October 18th.

Chemicals *(otherwise undescribed)*
Amsterdam, 15 cks.
Antwerp, 1 4 cs.
Boulogne, 7
Hamburg, 33 crbys. 82 dms.
Rotterdam. 6
Coal Products *(otherwise undes.)*—
Amsterdam, 66 cks.
Antwerp, 1 4 cs.
Boulogne, { 10 2 12 dms. 28 p'ls.
Rotterdam, 293
Coal Products—
Benzol
Hamburg, 32 dms
Pitch
Antwerp, 550 t.
Dunkirk, 182
Dyestuffs *(otherwise undescribed)*
Boulogne, 1 ck.
Hamburg, 20
Rotterdam, 44
Painters' Colours—
Amsterdam, 5 cks.
Boulogne, 4 5 cs.
Rotterdam, 8

GRIMSBY.

Week ending October 21st.

Alkali—
Dieppe, 1 ck.
Caoutchouc—
Gothenburg, 1 ble.
Helsingfors, 44 cs.
Malmo, 1 1 pk.
Coal Products *(otherwise undes.)*—
Dieppe, 57 cks. 4 pks.
Gothenburg, 1 brl.
Hamburg, 3 15 btls.
Rotterdam, 25 12
Painters' Colours—
Antwerp, { 1 bg. 3 cks. 4 kgs.
Hamburg, 6 2 cs. 1
Rotterdam, 1

PRICES CURRENT. WEDNESDAY, Nov. 1,

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities ma

	£ s. d.
Acids:	
Acetic, 25 % and 40 % .. .. per cwt.	6/3 & 8/9
,, Glacial .. .. ,,	35/-
Arsenic S.G. 2,000° .. .. ,,	1 4 0
Fluoric .. .. per lb.	0 0 3¼
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0 0 9
,, (Cylinder), 30° Tw. .. .. ,,	0 3 0
Nitric 80° Tw. .. .. per lb.	0 0 1½
Nitrous .. .. ,,	0 0 1½
Oxalic .. .. nett ,,	0 0 3
Phosphoric, 1750° .. .. ,,	0 0 10¾
Picric .. .. ,,	0 0 11½
Sulphuric (fuming 50 %) .. .. per ton	15 10 0
,, (monohydrate) .. .. ,,	5 10 0
,, (Pyrites, 168°) .. .. ,,	3 0 0
,, (,, 150°) .. .. ,,	1 5 0
,, (free from arsenic, 145°) .. .. .. ,,	1 7 6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3 0 0
Tannic (pure) .. .. per lb.	0 1 2
Tartaric .. .. ,,	0 0 11¾
Arsenic, white powdered .. .. nett per ton	19 5 0
Alum, loose lump .. .. ,,	4 5 0
Alumina Sulphate (pure) .. .. ,,	3 17 6
Aluminoferric .. .. ,,	2 2 6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148 0 0
Ammonia, Anhydrous .. .. per lb.	0 1 2
,, ·880 = 28° B. .. .. ,,	0 0 2¾
,, = 24° B. .. .. ,,	0 0 1¾
,, Carbonate .. .. nett ,,	0 0 3¼
,, Muriate .. .. per ton	23 10 0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-
,, Nitrate .. .. per ton	33 10 0
,, Phosphate .. .. per lb.	0 0 5
,, Sulphate (grey) London .. .. .. per ton	10 12 6
,, ,, (grey) Hull .. .. ,,	10 12 6
Aniline Oil (pure) .. .. per lb.	0 0 4½
Aniline Salt ,, ... ,,	0 0 4
Antimony .. .. per ton	39 15 0
,, (tartar emetic) .. .. per lb.	0 0 8
,, (golden sulphide) .. .. ,,	0 0 9
Barium Chloride .. .. per ton	6 12 6
,, Carbonate (native) .. .. ,,	3 15 0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-
Bleaching Powder, 35 % .. .. nett ,,	5 15 0
,, Liquor, 7 % .. .. ,,	3 10 0
Bisulphide of Carbon .. .. ,,	12 15 0
Chromium Acetate (crystal) .. .. per lb.	0 0 6¼
Calcium Chloride .. .. per ton	2 7 6
China Clay (at Runcorn) in bulk .. .. ,,	17/- to 25/-
Coal Tar Products and Dyes:—	
Alizarine (artificial) 20 % .. .. nett per lb.	0 0 6¾
Magenta .. .. ,,	0 3 9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0 0 4
Benzol, 90's .. .. per gallon	0 0 9½
,, 50/90 ,, ... ,,	0 0 10¾
Carbolic Acid (crude 60°) .. .. ,,	0 2 2
,, (crystallised 40°) .. .. per lb.	0 0 7½
,, (liquid 95/97%) .. .. per gallon	0 1 1
Creosote (ordinary) .. .. ,,	0 0 3¼
,, (filtered for Lucigen light) .. .. .. ,,	0 0 4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0 0 4½
Grease Oils, 22° Tw. .. .. per ton	3 0 0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1 12 0
Solvent Naphths, 90% at 160° .. .. per gallon	0 1 3½
Copper .. .. per ton	72 7 6
,, Sulphate .. .. ,,	25 2 6
,, Oxide (copper scales) .. .. ,,	68 0 0
Glycerine (crude) 80% .. .. ,,	32 10 0
,, (distilled S.G. 1260°) .. .. ,,	50 0 0
Iodine .. .. nett, per oz.	0 0 7½
Iron Sulphate (copperas) .. .. per ton	1 5 0
,, Sulphide (antimony slag) .. .. ,,	2 0 0
Lead (sheet) .. .. ,,	18 10 0
,, Litharge Flake (ex ship) .. .. ,,	20 0 0
,, Acetate (white ,,) .. .. ,,	23 5 0
,, ,, (brown ,,) .. .. ,,	19 0 0
,, Carbonate (white lead) pure .. .. ,,	23 5 0
,, Nitrate .. .. ,,	22 0 0

	£
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5
,, ,, (grey) (ex ship) .. .. ,,	8
Magnesium (ribbon and wire) .. .. per oz.	0
,, Chloride (ex ship) .. .. per ton	3
,, Carbonate .. .. per cwt.	1
,, Calcined Magnesia .. .. per ton	10
,, Sulphate (Epsom Salts) .. .. .. per ton	2
Manganese, Sulphate .. .. ,,	14
,, Borate .. .. per cwt.	2
,, Ore, 70% .. .. per ton	3
Methylated Spirit, 61° O.P .. .. per gallon	0
Naphtha (Wood), Solvent .. .. ,,	0
,, ,, Miscible, 60° O.P. .. .. ,,	0
Oils:—	
Cotton-seed .. .. per ton	19
Linseed .. .. ,,	25
Stearine .. .. ,,	27
Phosphorus (Yellow) .. .. per lb.	0
,, (red) .. .. ,,	0
Potassium Bichromate .. .. nett ,,	0
,, Carbonate, 90% (ex ship) .. .. .. per ton	17
,, Chlorate .. .. per lb.	0
,, Cyanide, 98 % .. .. ,,	0
,, Hydrate (Caustic Potash) 90 % .. .. per ton	24
,, ,, ,, 75/80 % .. ,,	20
,, Potash Hydrate Liquid 50 % .. .. ,,	13
,, Nitrate (refined) .. .. ,,	20
,, Permanganate .. .. per cwt.	2
,, Prussiate Yellow .. .. per lb.	0
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9
,, Muriate, 80 % ,, ... ,,	9
Silver (metal) .. .. per oz.	0
Sodium (metal) .. .. per lb.	0
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2
,, Acetate (ex-ship) .. .. ,,	13
,, Arseniate, 45 % .. .. ,,	13
,, Chlorate .. .. per lb.	0
,, Borate (Borax) .. .. nett per ton	16
,, Bichromate .. .. ,, per lb.	0
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	9
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	8
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4
,, ,, 77/78 % powdered (99 % hydrate) ,,	12
,, Bicarbonate (cwt. kegs) .. .. ,,	6
,, Hyposulphite .. .. ,,	5
,, Manganate, 25 % .. .. ,,	15
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0
,, Nitrite, 98 % .. .. per ton	26
,, Phosphate .. .. ,,	10
,, Prussiate .. .. per lb.	0
,, Silicate (glass) .. .. per ton	4
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3
,, Stannate, 40 % .. .. per cwt.	3
,, Sulphate (Salt-cake) .. .. per ton	1
,, ,, (Glauber's Salts) .. .. .. ,,	1
,, Sulphide (crystals) .. .. ,,	6
,, Sulphite .. .. ,,	5
Strontium Hydrate, 100 % .. .. ,,	9
Sulphocyanide Ammonium, 95% .. .. per lb.	0
,, Barium, 95 % .. .. ,,	0
,, Potassium .. .. ,,	0
Sulphur (Flowers) .. .. per ton	7
,, (Roll Brimstone) .. .. ,,	6
,, Brimstone: Best quality .. .. ,,	4
Superphosphate of Lime (26 %) .. .. ,,	2
Tallow .. .. ,,	28
Tin Crystals .. .. per lb.	0
,, English Ingots .. .. per ton	145
Zinc (Spelter) .. .. ,,	21
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7
,, Sulphate, Crystal .. .. ,,	7

THE

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LATE ADVERTISEMENT.

FOR SALE.—Horizontal Engine, 45 effective H.P., by Rait & Lindsay, Glasgow, fitted with Meyer's expansion gear. Can be seen working at the Anglo-Continental Guano Works, Victoria Docks, London, E.

Notices.

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Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Advertisements.

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Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

MORE CHEMICAL VENTURES.

THE consolidation of home interests and the expansion of those in foreign countries are sound economic principles, and this week we have had them applied by two companies asking the public to subscribe the necessary capital for putting these principles into practice.

The chemical industry is evidently going to be in the van as far as the industrial development of the Soudan is concerned, even if the frogs at home croak about our backwardness in other respects. It is evidently with this object in view that the Egyptian Salt and Soda Co., Ltd., has been formed. Particulars as to the capital and shares appear in this issue under the heading of "New Companies," and the following brief indication of how the Company has been formed, and what for, will doubtless be of interest.

The company has thee objects. In the first place it proposes to work salt deposits under an agreement with the Egyptian Government; to manufacture soda ash, bicarbonate and caustic at the deposits and works of the Société Anonyme des Soudes Naturelles d' Egypte; and to manufacture soap.

The salt is formed annually in Lake Mariotis by natural evaporation. The lake being several miles long, and situated at Mex, which is about four miles from Alexandria. The concession for working the soda relates to the Wadi Natron or Soda Valley, situated 35 miles west of Khatatbeh, a station on the Government railway between Cairo and Alexandria. Owing to the amalgamation of the salt and soda concessions the Government waives certain restrictions concerning internal sales, so that the company is in a position to sell these products internally in Egypt, subject to the payment to the Government of a maximum royalty of £1. per ton on all such internal sales.

The area covered by the concession is about 25 square miles, on which there are some seven lakes. The natural soda is found in three forms: (1) Dissolved in the water of the lakes; (2) separated in saline masses on the surface or at the bottom of the lakes; (3) as an efflorescence in the "bourdi" or bullrush fields.

Regarding the soap manufacture, seeing that caustic and salt are to hand, and there are obviously facilities for the purchase of cottonseed, whereby oil can be manufactured and refined at a considerable saving, it is not surprising to learn that it is proposed to erect the necessary buildings for the manufacture of soap. By this extension there will be obtained, as by-products, oil cake and glycerine.

Such are the resources which the Company has at its disposal, the crucial point, however, is at what cost can these undoubtedly rich natural deposits be converted into finished products? As is usual, the prospectus does not help us much in assessing this cost. There are a few statements about the aggregate values of the finished products after

allowing for working expenses, but there is no *data* on which an opinion may be formed as to the accuracy or sufficiency of the estimates for cost of production. At the same time, we are bound to add that these statements, however dependable they may be, emanate solely from the chemical adviser retained by the Company. There is no outside testimony, which is desirable now-a-days no matter how unimpeachable the *bona fides* of the Company and its officers may be. It is for this reason that we record the opinions of an outsider in our Correspondence columns elsewhere in this issue, although there is a certain amount of assumption in "expert's" indictment, just as there is in the deductions and forecasts made on behalf of the Company.

For the present we must leave the matter where it is, with the hope that we may be able to afford our readers a clearer insight into the properties and prospects of the company in the near future.

The second of the companies to which we referred at the outset—the United Indigo and Chemical Co., Ltd.—is of a far more prosy nature. For the most part it comprises nothing beyond the consolidation of eight businesses into one for the customary purpose of reducing travelling and working expenses, saving carriage, and economising, etc., in the purchase of raw material.

The firms which have amalgamated are Messrs. G. and J. Boyd, Glasgow; Clayton, Holdroyd, and Co., Huddersfield; Collinslee Chemical Co., Paisley; J. Haworth and Co., Church, Lancashire; William Heywood, Manchester and Halifax; J. R. Haas and Co., Leeds; Ellis Barlow, Huddersfield; James Emmett, Leeds; all of which are well established, and, to the best of our knowledge, sound concerns. There should be a reasonable prospect of the intentions of the Company being fulfilled, though it is not easy to say how desirable the situation will be when the results of this constant concentration of business begin to make themselves apparent.

We seem gradually, but surely, progressing towards a time when the buying and selling in every industry will be controlled by a handful of committees, to the extinction of all commercial intermediaries and the minor industrial satellites.

This line of progression seems more or less natural, but at present the future of the movement is too hazy to enable us to discern anything prospectively.

Graphitized Electrodes.—The Acheson Graphite Company of Niagara Falls has closed a contract with a European firm for 96 tons of graphitized electrodes. The carbon rods for graphitization will be furnished by the National Carbon Company, and the work is to be done in the next 4 months. The furnaces of the Carborundum Company will be used for the work.

Society of Chemical Industry: *Manchester Section.*—The members of the Manchester section of the Society of Chemical Industry held their opening meeting of the present session on Friday, November 3rd, in the rooms of the Chemical Club, Victoria Hotel. In the absence of the chairman, Dr. Watson, by reason of a serious illness, Dr. Grossmann, the vice-chairman, opened the session with an address on "The Limits of Accuracy in Technical Analysis." He said that in carrying out an observation or experiment it was not sufficient that they should be able to do their work carefully. It was even more important that they should inquire what errors they might be liable to commit, and thus be able to prevent, remedy, or correct these errors This truth has long been recognised in physics and astronomy. It had been applied to chemistry in theoretical investigations, notably in the determination of atomic weights, but it had not received the attention in technical analysis which was due to it. He proceeded to illustrate the uncertainty that exists in the atomic weights and how it affects analysis, and also showed that the measuring instruments were not sufficiently satisfactory. He suggested that they should get over these difficulties by making check tests with pure chemicals under exactly the same conditions as those under which the actual analysis was to be done afterwards. Mr. Powell also called attention to a special source of error in analysis which we shall deal with in an early issue.

THE ST. HELENS CHLORATE DISASTER.

HOME OFFICE REPORT.

THE Home Office report on the great explosion that occurred at the Kurtz Chemical Works at St. Helens on the 12th of May last was issued on Thursday this week. Colonel A. Ford, C.B., Her Majesty's Chief Inspector of Explosives, was deputed by the Home Office to make the investigation, and he was assisted by Dr. Dupre, F.R.S. Colonel Ford goes at length into the effects of the disaster, and says so far as he can ascertain an "explosion" of potassium chlorate has hitherto been unknown either in England or in any other country. Among the explanations suggested are the following:—That the smoke from burning wood may have formed an explosive mixture with the oxygen liberated by the heat from the chlorate, that the charred wood may have formed an explosive mixture with the free oxygen from the chlorate, that the fused chlorate may have sunk into the alkali waste heap on which the store was erected and formed an explosive mixture with the sulphide of lime or sulphur contained in it, although this theory was negatived by the absence of certain well-defined appearances, and that the temperature of the burning store may have reached the point when the chlorate would be suddenly decomposed with the evolution of an enormous volume of oxygen gas. Colonel Ford goes on to relate the character of experiments made to attempt to explode potassium chlorate, and says these experiments failed to produce an "explosion." Neither were detonating experiments any more successful, but it was demonstrated that the potassium chlorate could be exploded by very sudden application of great heat, and in view of this result it cannot be doubted that an explosion of a small portion of the chlorate actually did occur. This portion was doubtless raised very rapidly to the required temperature by the intense heat caused by the burning of some kegs in contact with other portions of the chlorate. Accepting that view, Colonel Ford goes on to suggest means of preventing a similar disaster.

SUGGESTIONS FOR SAFETY.

It is obvious he says, that if the kegs, the re-crystallising tanks, and the buildings had been made of unimflammable materials this disaster could not have happened. All inflammable materials, therefore, as well as those liable to form an explosive mixture with the chlorate, should be rigidly excluded from the packages containing the chlorate and the tanks and buildings in which this portion of the manufacture is carried on. As to the blame to be attached the Inspector says: Having regard to the fact that potassium chlorate has hitherto been held to be not liable to explode under any condition, and that although it was well known that a great conflagration at the works might be the result of an accidental ignition a worse disaster could not have been foreseen. I do not think that any blame in respect of this explosion can be justly attached to the United Alkali Company, Limited, the proprietors, to the manager, or anyone connected with the works. I have no doubt that they will take the necessary precautions to prevent a recurrence of the disaster by adopting the use of uninflammable materials as suggested. Colonel Ford, in conclusion, agrees in the main with the recommendations of the Coroner's jury, and testifies to the great assistance rendered by Dr. Dupre, the Town Clerk, the Chief Constable, the Borough Engineer, and the United Ulkali officials.

Calico Printing Combine.—Although there is considerable dissatisfaction felt at the valuations put on the Scotch calico printing establishments, a Glasgow correspondent learns that it is practically assured that all the businesses, with one or two exceptions, will join the proposed combination of calico printers of the United Kingdom. So far as those firms in Glasgow and district are concerned, all have joined with the exception of one large house. The prospectus will be out early next month, and the first capital issue will amount to six millions. The combination will be put forward by the Manchester firm which promoted the Bradford Dyers' and English Sewing Cotton Corporations. While it is believed that prices in the first instance will not be materially raised, a minimum standard of prices will be fixed. Of course, large economies in the working are assured.

The Belgian Coal Industry.—In virtue of an agreement existing between the Belgian and French railway companies the latter are entitled to retain in exchange for an indemnity of 3f. per day all the Belgian wagons. Of late the French companies have been making great profits out of this state of things, as by means of a very small payment they have the use of a considerable number of wagons; but this threatens to become very detrimental to Belgian industry. For instance, one coal company, after having asked for 122 wagons, could only obtain two. That iron foundries and blast furnaces have to suffer is quite natural. Such concerns at La Louvière and Charleroi have been bound to partially suspend their activity. Moreover, or perhaps on account of this situation, a certain agitation has now been originated amongst the workmen, especially in the bassin of Charleroi. In the mines of the Liège district and in the Borinage, strikes have already broken out.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Improvements in Insulating Material. M. Frank. 21,134. October 23.

Aluminium Alloys and the Method of Casting them. W. A. McAdams and D. D. Book. 21,137. October 23.

Obtaining Iron Oxides. H. J. Haddan. 21,224. October 24.

Preparing Peroxide of Hydrogen. E. Edwards. 21,333. October 25.

Refuse Destructors. S. J. Beaman. 21,344. October 25.

Recovery of Tin from Tin Plate Scrap and other Waste Tin Products. C. T. Batchelor. 21,346. October 25.

Compressed Blocks of Calcium Carbide and Means for Protecting the same from Damp. R. Starke. 21,349. October 25.

Factory for the Manufacture of Explosives. G. Beneke. 21,395. Oct. 26.

Tanning by Aid of Electricity. A. T. Wedelin. 21,400. October 26.

Apparatus for Purifying Water or other Liquids. L. Gathmann. 21,451. October 27.

Extracting Metals from their Oxides and Ores and in Forming Alloys. J. B. de Alzugaray. 21,476. October 27.

Producing a Fertilizer Rich in Phosphoric Acid and a Phosphorus Pig-iron. A. J. L. af. Forselles. 21,484. October 27.

Filtering Medium and Process for Making same. J. R. Hatmaker. 21,502. October 27.

Filtering Materials and Method of Manufacturing same. E. von Rittershausen. 21,576. October 28.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Production or Treatment of Bichromate of Soda. A. Goldschmidt, 28, Grenzallée, Bockum-Krefeld, Germany. Eng. Pat. 25,000. November 26, 1898.

Bichromate of soda, as at present manufactured, often contains excessive moisture, and is also contaminated with sulphate of soda, which is both objectionable and difficult to remove. By the process described below, dry bichromate, free from sulphate of soda, is obtained, owing to the fact that the sulphate is quite insoluble in a bichromate lye testing 1·795 sp. gr. at 15° C. The weak lyes obtained by leaching the chrome smelt are concentrated until the normal chromate of soda begins to salt-out, and the syrupy solution solidifies at once on cooling. Sufficient sulphuric acid, testing 60° to 66° Bé, is then added to form the bichromate, thus yielding a lye of 1 795 sp. gr. (159° Tw.). All the sulphate of soda separates at once, and is removed from the boiling lye, the latter being evaporated to produce the solid bichromate. The same method may be adopted to purify ordinary bichromate of soda containing sulphate.

Improvements in the Electro-deposition of Metals. S. O. Cowper-Coles, Grosvenor Mansions, Victoria-street, London, S.W. Eng. Pat. 21,974. October 19, 1898.

The use of agate burnishers, or pads, to obtain a smooth and tough deposit of metal, is obviated by revolving the cathode or mandrel, on which the deposit is to be made, at a great velocity. In this way, there is sufficient friction between the mandrel and the electrolyte to achieve the desired end. The cathode is also kept free from hydrogen bubbles, so that a much higher current density can be employed. There are four figures.

Improvements in Ice Making and Cooling Machines and the Chemical Media used therewith. A. Camille, 141, Union-street, Southwark, London, S.E. Eng. Pat. 20,731. October 1, 1898.

There are two figures illustrating the apparatus used by this method. Briefly, there is a jacketed vessel, in which the liquid to be frozen is placed, and a conical vessel, containing some highly volatile fluid, which is immersed in the liquid to be cooled. A current of air is caused to pass rapidly over the surface of the volatile fluid by the aid of a fan or continuous bellows. The charge in the inner vessel may be either commercial ether, mixed with alcohol or carbon bisulphide, or a mixture of liquid ammonia and glycerine. The jacket on the container is packed with a mixture of nitrate and chloride of ammonia, nitrate of potassium, salt and water, or other suitable preparation.

An Improved Process for Purifying Waste Water or Sewage by Precipitation. W. P. Thompson, 6, Lord-street, Liverpool (communicated by C. G. Gsell, 29, Luisenstrasse, Berlin). Eng. Pat. 25,000. Nov. 26, 1898.

The iron and alumina bases in waste waters are turned to account by treating the mud or sludge from the waste with sulphuric acid, and allowing the mixture to stand in heaps for 3 to 5 days, during which the acid re-acts and converts the alumina and iron into basic sulphates. This mixture is then used to precipitate fresh quantities of sewage. When a large quantity of sludge has accumulated, it may be treated with acid, and the sulphates dissolved out, the resulting lye being used as a precipitant, and the sludge disposed of in any suitable way.

Improvements in Tanning. J. V. Koch, Weile der Stadt, Wurtemburg, Germany. Eng Pat. 24,844. November 21, 1898.

This is a combined chromium and vegetable tanning process. The essential feature is the order and nature of the baths in the treatment. The first bath is prepared by dissolving together chrome alum and soda ash, in which the hides (free from lime) are agitated for about 4 hours at 20° to 35° C. The second bath, in which the hides are similarly treated, is prepared by dissolving chromium oxyhydrate in hydrochloric acid, and adding a solution of soda until basic oxychloride of chromium separates. The hides are then worked on the flesh side, kneaded, washed, and tanned for 8 days in mixtures of sumach and gambier; sumach, gambier, and oak bark; or oak bark and quebracho, according to the shade required. The hides are then squeezed out, and worked for polished leather.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

ANOTHER of the summonses taken out by the sanitary committee of the Manchester Corporation against chemical manufacturers in the Miles Platting and Newton Heath districts, for a public nuisance alleged to be due to the emission of noxious fumes from their works, was heard by Mr. Headlam at the City Police Court last week. The defendants in this case were Messrs Hamor Lockwood and Company, Philips Park Road, who have previously been summoned in respect to their works in Vickers-street. Mr. Rhodes, barrister, appeared for the prosecution, and the defendants were represented by Mr. Langdon, barrister.

Mr. Rhodes, in opening the case, said that ten ratepayers having signed a certificate complaining of a nuisance from Messrs. Lockwood's works, the sanitary committee of the Corporation were compelled to take these proceedings. At the defendants' works in Philips Park Road the manufacture of sulphate of iron from old cans, buckets, and scrap iron was carried on. An offensive odour arose from the burning of the grease and paint on these articles, and a further smell was created by the action of acid upon the metals. Complaints had been made respecting these smells for a long time past. The old metal was dealt with in nine vats, and when Dr. Niven, the medical officer of health, visited the works in May, 1896, he found these all uncovered. He suggested to the firm that the vats should be covered, and the fumes carried into a furnace and burnt, or passed away through a chimney. Dr. Niven again went to the works at the beginning of this year, and found five of the vats still uncovered.

Mr. R. M. Rowe, sanitary inspector of the Corporation, said that he had visited Messrs. Lockwood's works several times, and was convinced that a noxious smell arose from the manufacture of the sulphate of iron He thought the gases arising from the manufacture of sulphate of iron could be safely conducted through a chimney, but he could not point out how this could be done, nor could he say that less effluvia was given off from the covered pans

The first witness called on behalf of the defendants was Mr. Frank Scudder, who, after describing the method of manufacturing sulphate of iron as carried on at Messrs. Lockwood's works, said he did not know of any other means than the tar covering of the vats, which would counteract the emission of the smells complained of. If the fumes were sent up the chimney there would be the liability to explosions. He was of opinion that to burn the hydrogen as it came from the vats would not be practicable. The apparatus in use at Messrs Lockwood's works were the best means available for counteracting any effluvia, and abating any nuisance that might arise. In cross-examination, Mr. Scudder said some fumes were certain to arise in the process in use at the works, but not necessarily in such quantities as to be a nuisance. Mr Headlam reserved judgment until the hearing of the other cases was completed.

Obituary—We regret to announce the death of Mr. William Lloyd Williams, the assistant manager of Messrs. Burroughs, Wellcome, and Co.'s works at Dartford, at the early age of 38. A weak heart had long troubled Mr. Williams, and this disease, coupled with blood poisoning, proved fatal on Saturday evening last.

Legal Intelligence.

CHANCERY OF LANCASHIRE.

MANCHESTER SITTINGS.

(*Before Vice-Chancellor Hall, Q.C.*)

MARSDEN & Co., LTD. v. THE BURNDEN TAR DISTILLERY COMPANY, LTD.

The hearing was continued last week, for the sixth day, of this case, in which the plaintiffs, who carry on business as bleachers, at Burnden, near Bolton, claimed an injunction to restrain the defendants, who are tar distillers at Burnden, from permitting tar or other noxious matter to flow from their works on to the plaintiffs' land or into the goit leading from the rixer Croal to the plaintiffs' reservoirs, or doing anything to render the water in the goit and reservoirs less pure than it was at the time the defendants established their works in 1898. Mr. Radford and Mr. Grant appeared for the plaintiffs, and Mr. Maberly and Mr. Mansfield for the defendants. Mr. Charles James Lomax, civil engineer, further examined by Mr. Maberly, explained at length the investigations he had made which led him to the conclusion that it was impossible for tar or tarry matter to find its way from the defendants' works to the plaintiffs' premises except by the plaintiffs' own act in digging holes under the retaining wall. That had tapped the tar which had, owing to an accident some time ago, found its way into crevices in the defendants' land. The witness was subjected to a long cross-examination by Mr. Radford. On Tuesday, Mr. Thomas Aspinall, analytical and consulting chemist, who detailed the results of a long series of analyses he had made of samples of water and soil taken from the plaintiffs' premises at various times commencing with the month of May last. Up to the time the plaintiffs dug below the defendants' retaining wall and tapped the tar which had sunk there, he found no traces of coal tar or tarry matter on the plaintiffs' premises, but after that time he found many indications of the presence of coal tar. In his opinion if the plaintiffs had not thus tapped the tar held back by the wall it could not have got on to their premises at all.—The case was adjourned.

THE MANCHESTER SEWAGE SCHEME.

THE EXPERTS' REPORT.

THE report was issued on Tuesday this week of the three experts in regard to the treatment of sewage who were appointed by the Manchester City Council by resolution passed on the 23rd May last year. It is a report of the first importance, for although directly addressed to the Manchester Corporation, it will undoubtedly receive the attention of other large municipal bodies concerned in this vexed business. The resolution of the Corporation was that not less than three eminent experts (one chemical, one biological, and one engineering) be requested and authorised to advise on a scheme of sewage disposal. The experts appointed were Mr. Baldwin Latham, Mr. Percy F. Frankland, and Mr W. H. Perkin, jun. These gentlemen advertised in different newspapers to the effect that they were prepared to consider any scheme which might be suggested for their consideration. The replies having been considered, the experts critically examined sewage works at various places. These visits led to the conclusion that the methods of sewage treatment were essentially of three different types, namely :—1. Disposal without any purification, by discharge into the sea, tidal estuary, lakes, rivers, &c. 2. Separation of more or less impurity by precipitation, mechanical or chemical. The impurity so removed is little more than the solid matters in suspension, those in solution which lead to nuisance through subsequent putrefaction being hardly affected by such treatment. 3. Destruction of more or less impurity by resolution into simple and inoffensive materials. The report continues :—In the third mode of treatment only is there any purification proper. The destruction of impurities may be effected by actual combustion at high temperatures, also by the use of certain chemicals, and lastly by the instrumentality of low forms of life (micro-organisms or bacteria). Only the latter mode of destruction is within the range of practical possibility and need be further considered, the question of cost alone making destruction by chemicals or combustion altogether prohibitive. Thus for the destruction of impurity—*i.e.*, for the real purification of sewage—there is only one practicable means available, viz., the employment of bacteria in some shape or form. In fact, all methods of sewage purification actually practised are bacterial methods, whether so named or not. Having regard to the facts set forth above, it devolved upon us to consider which of the three methods of sewage treatment was the best adapted to the needs of Manchester. In this connection it was obviously of great importance to keep in mind not only the possibility of utilising the existing works at Davyhulme, but also the special circumstances of Manchester, and in particular the relations of the sewage works to the Ship Canal. It appears that the land at Davyhulme available for the purposes of the disposal of sewage includes 165½ acres, so that there is ample area to construct the works necessary for the purification of the sewage of Manchester, including storm water. Of 138 acres of "available lands," probably about 125 acres would be available for the purposes of the construction of works.

THREE METHODS,

the experts go on to say, had already been before the Committee, viz. (1) treatment of the effluent on land, (2) the culvert scheme, and (3) the bacterial scheme, as proposed by Sir H. Roscoe and modified by the present Rivers Committee. In regard to land treatment, on the basis of a population of 650,000, the calculation was that 1,300 acres would be required, exclusive of roads, carriers, and the usual adjuncts of a sewage farm. In view of the large cost and the unsuitability of the land at Davyhulme, the system could not be recommended. As to the culvert scheme, the experts report as follows :—The culvert scheme, as you are aware, provides for the conveyance of the effluent as at present produced to the tidal river Mersey at Randall's Sluices. We have very carefully considered this proposal from a number of points of view, and have inspected the Ship Canal from Barton Locks down to the point in question before drawing a conclusion as to its practicability. Reserving for a moment the question of its practicability from an engineering point of view, we are strongly of opinion that such a scheme cannot be entertained, both in consequence of the geographical position of Manchester and of its obligations to the Ship Canal. We believe that an effluent having the volume and quality of that sent out from the present works could not be discharged into a tidal river like that of the Mersey without occasioning considerable nuisance, and, what is more important, calling forth the most hostile opposition of the riparian communities which would be affected. Even in the highly improbable event of the scheme receiving the consent of Parliament, it is to be anticipated that the growth of public opinion on the matter of river pollution would lead to such pressure being put upon the Corporation of Manchester that in the future it would become necessary to further treat the effluent before discharge at the place contemplated. This result would mean that the outlay on the culvert had been to no purpose whatever, and that the present difficulty would have to be faced over again and at a greater distance from home. There is, moreover, the further formidable objection that the scheme involves the abstraction of upwards of 25 millions of gallons per day from the present waters of the Ship Canal, a volume the loss of which would be more and more felt as the traffic of this waterway increases from year to year. As regards the feasibility of the culvert scheme from an engineering point of view, it should be observed that the culvert which has been proposed was stated to be a circular culvert of 6½ ft. internal diameter, and having a fall of 1 in 2,100. Its full discharging capacity would thus probably be about 67,000,000 gallons a day, assuming it to be discharging during the whole of the period. This rate of discharge also represents, of course, the rate at which sewage effluent could be got into the culvert at Davyhulme. This rate, however, is only about one-half of the rate of which storm water is brought down to the Davyhulme works in the time of rain, so that either means of storage would be required for the storm water or the latter would have to be separately treated at Davyhulme. Dealing with

THE BACTERIAL SCHEME,

the experts say :—The experimental results obtained by Sir H. Roscoe, and subsequently by Mr. G. J. Fowler, the most recent of which are contained in the City Surveyor's reports for 1896 and 1897, impressed us so favourably as to the possibility of applying the bacteriological method to the purification of Manchester sewage that it appeared to us that the solution of the problem before us lay in this direction. The scheme in question, however, involves the disposal by steamer of an enormous volume of sludge (190,000 tons annually), as well as great outlay on chemicals for precipitation (£5,000.), and we therefore directed our attention to the possibility of devising a more economical method. To this end we felt that it was of the highest importance to carry out a searching experimental investigation of our own as to how the bacteriological processes can be most advantageously applied to a sewage possessing the special characters of that of Manchester. Thus some of the more urgent points demanding elucidation were the following :—1. To determine whether the trade refuse in Manchester sewage seriously impaired the efficiency of the bacteriological treatment. 2. To determine whether a portion at any rate of the sludge can be destroyed by bacterial agency. 3. To determine whether the addition of chemicals to the sewage before bacteriological treatment can be dispensed with. 4. To determine whether the aërobic process (decomposition of organic matter by bacteria in the presence of air) or a combination of anaërobic (similar decomposition without air), and aërobic processes is the more advantageous. With a view to carrying out such experiments, we requested you to erect at Davyhulme suitable bacteria beds from instructions supplied by our-

selves, and so arranged as to allow of a great variety of conditions of treatment being realised. This plant was subsequently enlarged by the addition of further beds. These were constructed in order to deal with an extension of our inquiry imposed upon us by the Local Government Board demanding that the treatment of storm water should form part of the scheme which we were prepared to recommend. With the bacteria beds and their adjuncts, as well as with the septic tank installation, we have conducted a very extended series of experiments. These have been continued up to the present time, and have served not only to elucidate the principles of successful bacterial treatment, but have also enabled us to formulate a definite scheme for dealing with the sewage of Manchester in its entirety, which we have no hesitation in recommending to your Committee for adoption.

Dealing with the way in which the bacterial purification of sewage takes place, the experts say:—The bacteria, already existing in the sewage, are brought by it on to the bacteria beds, or into the septic tank. The former, by providing an enormously extended surface for the development of bacterial growths, furnish an ideal habitat for those aërobic micro-organisms which require air (oxygen) for the display of their powers. whilst the septic tank, by confining a large volume of liquid which is but superficially in contact with air, enables the anaërobic micro-organisms to work to great advantage. It will be understood that some time must elapse before the bacterial life attains its maximum, either in the bacteria bed or in the septic tank, and consequently the amount of sewage which can be purified therein will gradually increase as time goes on. An elaborate description follows of the bacterial plant used for the conduct of the experiments, including the septic system of Messrs. Cameron, Commin, and Martin, and the system of the Roscoe filters, and also the mode of working the filters. The experts meet the charge of "clogging up" and of "renewals" made by opponents of the bacterial process by calling attention to the work of the Roscoe filters, which have been in operation for nearly four years. After giving figures, both of these filters and of their own bacteria beds, the experts draw the conclusion that, "after being in operation for a comparatively short time, the beds acquire a practically constant capacity." Most important statistics are submitted to bear out this conclusion. It is shown, for example, that the coke filter laid down under the direction of Sir Henry Roscoe at the end of 1895 did not lose a single pint of its cubical capacity between the dates of April 26th, 1897, and October 6th last, while its power of purification enormously increased. On the former date it was dealing with the sewage at the rate of 752,800 gallons per acre per day, whereas on the latter occasion this had risen to 1,004,000 gallons. In view of the facts and considerations stated, the experts submit the following conclusions in regard to the economical and efficient employment of bacteria beds for the purification of sewage:—(1) The suspended matter must be removed as far as possible by sedimentation; (2) any suspended matter not so removed should be retained as far as possible on the surface of the bed; (3) for maintaining the efficiency of such beds, the surface must be raked or forked over from time to time; (4) periodical intervals of rest must be allowed. The conclusions and recommendations of the experts we give practically in full:—

CONCLUSIONS.

1. That the bacterial system is the system best adapted for the purification of the sewage of Manchester. 2. That any doubts which may have arisen in the first instance as to its suitability, owing to the presence in Manchester sewage of much manufacturing refuse, have, through the convincing results of our experimental inquiry, been entirely banished. The results obtained have altogether exceeded our expectations as to the possibility of purifying a manufacturing sewage, inasmuch as it was previously a matter of common belief that in such a liquid only a most insignificant amount of nitrification could be induced. 3. That inasmuch as a bacterial contact bed can only effect a definite amount of purification in a single contact, it becomes necessary, in order to carry the purification beyond this limit, to apply the effluent to a second bed, in which again a further definite amount of purification can be effected. Hence, for obtaining a high degree of efficiency in the bacterial purification of sewage, a system of multiple contact is is generally necessary. Thus it may be taken broadly that in the first contact 50 per cent. of the dissolved impurity is removed, and that in the second contact 50 per cent. of the impurity still remaining in the effluent is disposed of, and so on. 4. In order that a bacterial contact bed may exercise its full powers of purification it is necessary—(a) that it should be allowed sufficiently frequent and prolonged periods of rest; (b) that the sewage applied to it should, as far as possible, be free from suspended matters; (c) that the sewage applied to it should be of as uniform a character as possible. 5. The above conditions are secured by passing the sewage, as it arrives at the works, through an adequate system of screens, catchpits, and tanks. 6. The capacity of bacterial contact beds has been found to remain practically contant after they have been in operation for a period of three months. 7. With regard to the amount of sewage which can be purified by a given bed without the latter being overtaxed, our prolonged experimental inquiry has shown that each bed may safely receive four fillings in the 24 hours, provided the sewage has undergone the preliminary subsidence and septic preparation in tanks, and that the bed is accorded about one day's rest in every week. In the event of a bed having been unduly taxed, its efficiency is only temporarily impaired, and can be restored by a few days' repose. 8. We have shown that storm water may also be satisfactorily dealt with by means of an accelerated bacterial treatment, which can be brought into operation as soon as the sewage is sufficiently dilute. As, however, until about two hours after the commencement of heavy rain there is no abatement in the concentration of the sewage, it will be generally necessary to provide for the storage or separate treatment of the first flow. 9. Our experiments show that the bacterial system of treatment is efficacious at all seasons of the year, the temperature of the sewage being sufficient both to prevent any stoppage of the beds by the formation of ice, and also to maintain the necessary activity of the bacteria even in the coldest weather.

RECOMMENDATIONS.

1. That the sewage, as it arrives at the works, be submitted to an efficient process of screening, and that it be then passed through the present open tanks. These tanks should be provided with submerged walls and floating scum-boards, so as to retard the flow of the mineral and organic matters in suspension. In the event of the present screening machinery proving insufficient to remove the heavier mineral matters in suspension, it would be desirable that four roughing tanks should be added to the present tank arrangements, or that four of the existing tanks should be converted into such roughing tanks, and that four additional tanks should be provided to take their place. 2. That the effluent from the open tanks be passed through the double contact beds. Of these double contact beds we estimate that there should be an area amounting in round numbers to 60 acres. exclusive of retaining walls, roads, etc. This estimate is based on a dry-weather flow of 30 millions, and that each acre, being laid out in beds of 3·33 ft. depth, with four fillings per 24 hours, would be capable of dealing with half a million gallons of sewage in round numbers, allowing for one day per week rest. The final effluent from the various filters would be collected and conveyed into the existing deep-water culvert, which passes through the lands at Davyhulme, and would thus convey the effluent into the Manchester Ship Canal below Barton Lock. With regard to the material most suitable for the bateria beds, we should recommend that it consist of clinkers, of such a size as to pass a 1½ in. mesh, and to be rejected by a ½ in. mesh. Efficient means must be provided for rapidly filling and discharging the beds. The beds should be so constructed as to allow of each being used independently. 4. During the occurence of a storm the flow of sewage should be dealt with in the system of tanks and double contact beds. The excess of flow, after passing through the roughing tanks, should be taken to specially prepared bacteria beds of an area which, we provisionally estimate, will have to be of at least 25 acres in extent. As a safeguard against excessive quantities of storm water passing down at any time, the present sewage tanks may have an increased depth of water put upon them. At present the tanks have a capacity of 12 3 million gallons per day, and this may readily be increased to about 15 million gallons per day by raising the walls of the tanks. When a tank is required to be cleansed, which will be very seldom the case, it will be necessary for part of the liquid contents to be pumped into the sewage channels, so as to be capable of being treated in other tanks. Finally, we may state our confident opinion that with the system of bacteriological treatment of the sewage of Manchester set forth above, an effluent will be produced which will not only conform with the Mersey and Irwell standard, but which will also materially improve the condition of the Ship Canal. Furthermore, as this system does away entirely with the use of chemicals, and at the same time to a very large extent reduces the volume of the sludge to be dealt with, it is obvious that much of the present expense will be saved by its adoption, and this saving may be taken as a material set-off against the cost of the construction of the proposed works.

FIRE AT GAYTHORN GASWORKS.—A fire occurred on Wednesday night at the gasworks in Medlock-street, Manchester, fortunately without any serious consequences. It arose from an accident to one of the purifiers. A number of these tanks stand together in an open shed, and being each about forty feet square contain an immense quantity of gas. For some reason which has not yet been ascertained a man-hole in the bottom of one of the tanks fell out. The gas at once began to escape and was speedily ablaze. The foreman of the works, with great presence of mind, shut off the valves and isolated the purifier from which the gas was escaping. Mr. Parker arrived with several detachments of the brigade and got two powerful jets to work. Little could be done, however, but let the gas burn itself out. This it did without doing much damage to the shed, and without interrupting the general work of the place. The danger was over in about half an hour.

Reports of Companies.

LIVERPOOL NITRATE CO., LTD.

The directors' report for the year ended June 30th last states that the profit and loss account shows a balance of £18,125., and adding balance of profit and loss from previous account, £9,498., there is a total of £27,624. Out of this the following dividends have been paid; November 11th, 1898, 7½ per cent.; May 15th, 1899, 7½ per cent., leaving a balance of £11,124. The directors propose to pay a dividend on November 11th of 7½ per cent. (being at the rate of 15 per cent. for the year), carrying forward £2,874. The reduction of the reserve fund to £18,000. as compared with £40,000. in the last balance-sheet represents the amount of £1. per share, or £22,000, returned to the shareholders.

COLORADO NITRATE CO., LTD.

The directors, in their report for the twelve months ended June 30th last, state that the profit and loss account shows a balance of £1,247., and adding balance of profit and loss from previous account, £13,095, there is a total of £14,342, which the directors propose to carry forward to next account. The nitrate stocks on June 30th are valued in the balance-sheet at contract prices, being all sold but not delivered on that date. The iodine stocks are also valued at cost price.

DIVIDEND.

Kellner Partington Paper Company.—At a meeting of the directors of this company, held on Tuesday, it was resolved to recommend to the shareholders a dividend for the half year ended September 30th last of 6½ per cent, making, with the interim dividend paid in May last, a total dividend for the year at the rate of 12½ per cent.

IMPURITIES IN FERTILISERS AND FEEDING STUFFS.

FARMERS can never be too much on the alert as to the quality of the materials they purchase in the form of fertilisers or feeding stuffs, as is illustrated by the publicity now given by the Royal Agricultural Society to several cases of imposition reported by its members. Basic slag is a fertiliser held in deservedly high repute for the special purposes to which it is suited. A member purchased, through a local firm, basic slag which had been guaranteed to him as containing 38 to 45 per cent. of phosphates, the price being 46s. per ton delivered. Dr. Voelcker's analysis showed only 13·48 per cent. of phosphoric acid (equal to 29·42 per cent. of phosphate of lime), and "fineness" of 69 per cent. It thus proved to be a coarsely-ground sample of low quality. Properly ground basic slag—and the degree of mechanical subdivision is an important factor in the action of this manure—should possess "fineness" of 80 to 90 per cent.

Some decorticated cotton-cake that had been given to 19 dairy cows led to violent purging and loss of milk in the case of 12 of them. On examining samples of the cake Dr. Voelcker found it to contain husks of castor-oil bean, which had undoubtedly caused the trouble. The vendors had to take the cake back, and made full compensation to the purchaser.

It is not unusual for compound feeding-cakes to prove of quality inferior to that which is represented, or to contain ingredients of an unsound, unsuitable, or worthless character. As a case in point, a cake was sold as "a compound of linseed, cotton-seed, and grain, cooked in treacle," the purchaser ordering six tons at £6. per ton delivered. With the cake was given the following guarantee of analysis—oil, 8 per cent.; albuminoids, 18 per cent; carbo-hydrates, 50 per cent. Dr. Voelcker's analysis showed only 5·26 per cent. of oil and 16·43 per cent. of albuminous compounds (flesh-forming matters). He reported the cake to be decidedly below the guarantee in oil and albuminoids, and to be not made from clean materials. The manufacturer promised to look into the matter, draw a further sample, and compensate the purchaser in case the report was substantiated. He further acknowledged to having had a parcel of seed which he was dissatisfied with, and was then in dispute with the sellers about it. The examination of the further sample confirmed the original report, and the manufacturer allowed the purchaser £3. on account of the last two tons delivered.

It cannot be too widely known that the Fertilisers and Feeding Stuffs Act expressly provides against the inclusion in "food for cattle" of ingredients deleterious to cattle, or of any which are "worthless for feeding purposes," if these latter have not been disclosed at the time of sale.

Selected Correspondence.

INDIGO.

(To the Editor of the Times)

Sir,—The question of the likelihood of artificial indigo becoming a serious rival of the natural product is of such importance to Indian growers that it is desirable to correct the false impression which might be conveyed by some of the statements made by Mr. G. J. Lavers.

Quoting Messrs. Mewburn and Ellis' statement "that eventually synthetic indigo will have a very serious effect on the natural indigo trade," Mr. Lavers says "I think not," and gives as his reason "that articles dyed with real indigo preserve their colour and wear better than those dyed with substitutes." Even Messrs. Parsons and Keith seem to think that there may be a substantial difference in the properties of the natural and artificial products.

It should be clearly understood that it is no question of introducing a substitute for "real indigo," if by this is meant the blue colouring matter in commercial indigo, but of using a substance identical with that produced by Nature, and differing from it only by being "made in Germany"—of using an article differing only from that produced in India (apart from the presence of indigo red in the latter) by being of superior quality owing to its freedom from the foreign matters often present to a considerable extent in commercial natural indigo. Unless these impurities play an important part in the dyeing process—and this is improbable—the artificial product should be at least as good a dye in all respects as the natural indigo.

I am told that, as produced by the Badische Company, artificial indigo does not lend itself to the dyers' use quite so readily as the natural product. Indigo, properly speaking, is not a dyestuff, but an insoluble pigment. To dye with it the blue must first be converted into soluble indigo white. It is said that the artificial substance is not quite so easily reduced to white as is the natural product; but this involves no real distinction. Crystalline substances are often less amenable to treatment than are amorphous ones, and probably little difficulty will be experienced in making artificial indigo just as easy to treat as that from any natural source.

I had the opportunity when in Germany a few days ago of discussing the outlook with friends interested in the manufacture of indigo. I found them entirely hopeful of success, while in no way disguising the difficulties, and my belief is that Messrs. Mewburn and Ellis have by no means exaggerated the danger ahead.

No reliance can be placed on a rise in price of crude materials. There should be no difficulty in increasing the production of naphthelene and toluene, should a demand arise; enormous quantities of tar are now allowed to go to waste in coking coal.

The stake for which the German chemical manufacturer is playing is a very big one—far bigger than was offered by madder 30 years ago. Indigo is more difficult to make than is alizarine, but such is the persistence of the German attack upon the position, and so great is the improvement in our methods, that it is far from improbable that all difficulties will ere long be overcome. The manner in which the German factories are organised for such work is marvellous, and calculated to excite the admiration and envy of all who can understand it. I have been astonished at the progress made only in the course of two or three years since I was last in the Rhine district. Thus firm I find has a scientific staff of 110 skilled chemists, whilst that of another has risen to no fewer than 150, and the works are in proportion. Nature has no chance in the long run against such odds.

The one lesson to be learnt, I believe, is that planters should without delay put their house in order, and seek in every way to improve the cultivation of the plant and the extraction of the indigo from it. It would be interesting to know whether a single competent chemist is at present engaged in studying the subject, and whether the Indian Government has in any way had its attention directed to the importance of scientific aid being given to the industry.

I am, &c.,

Henry E. Armstrong.

Central Technical College, South Kensington.

THE PRIMITIVA COMPANY.

(To the Editor of The Financial News.)

Sir,—I have been expecting to see an answer to the questions asked by two shareholders in your columns. (See also this *Journal* 649, p 282). The directors have preserved a silence only too discreet; but the result of their negotiations is no longer a secret; for we learn from the report of the Agua Santa Company that our property has been sold for £25,000. So much for the mighty Primitiva, the queen of nitrate companies, floated at £200,000.; and so much for Colonel North's promises of a cent. per cent. dividend. So much for the hopes held out when the company was reconstructed and we paid up

a liability of 10s. a share to buy the Modesta grounds. So much for the brilliant reports of Mr. Hicks and others. So much for the words of comfort spoken by our chairman at each annual meeting.

And now that all is over we shall probably have the satisfaction of learning that this company, which for the year 1897 showed a debit balance of £8,214. and for the year 1898 a debit balance of £5,681., can, under new management, pay a handsome dividend to its proprietors.

Yours obediently,

ANOTHER SHAREHOLDER.

November 6.

EGYPTIAN SALT AND SODA COMPANY.

(To the Editor of the Financial Times.)

SIR,—I observe in your columns to-day a prospectus of the Egyptian Salt and Soda Company, Ltd., which proposes to exploit natural soda deposits, for which attempts have long been made to find a purchaser. It is only fair to the British investing public that they should be supplied with more detailed information as to the probable success of this undertaking than the very meagre data given in this prospectus. After an unsuccessful attempt to interest British capitalists in this business, the deposits in question were, on the advice of Professor Lunge, taken up by a Swiss syndicate, who are evidently very pleased to part with their "valuable" acquisition to the British public before they have completed their installation.

The significant fact will be noted that the only expert opinion referred to is that of Professor Lunge himself, who was the consulting expert of and is interested in the vendors' syndicate, and that the directors of the Egyptian Salt and Soda Company do not seem to have considered it necessary to obtain any independent opinion. It will also be observed that no figure whatever of the cost of production and of the selling price is given in the prospectus. When it is remembered that these works are 35 miles in the desert from the main railway line, and 85 miles from Alexandria, and that the only fuel that can be obtained consists of rushes, whose equivalent coal value is at least 12s. a ton, the intending investor is surely entitled to claim something more definite in the way of a statement of probable cost than the mere assertion that a good alkali product can be turned out at Wady Natron at a price which is estimated to be as low as or lower than the figure of any other alkali-producing centres.

From figures of cost of production which the writer has had an opportunity of examining, and which were based upon data furnished by people interested in the sale of the deposit, it results that with suitable plant and good management a ton of soda-ash could be produced at Wady Natron for approximately £2. 10s., excluding cost of packages. The cost of these, in a situation of this nature, must necessarily be very heavy. Based on English figures, the sum of 10s. a ton would not appear to be an exaggerated amount for packing and packages. This would give a figure of £3 per ton at the works. The freight to Alexandria by rail is about another £1. a ton, which brings the price at that port up to £4. per ton, to which must be added a royalty to the Government of £1. per ton. The same product, made in Europe, is now being sold c.i.f. Alexandria at £4. 5s. per ton, at a time when there is no competition. This does not augur well for the profits which it is supposed will be made in the soda part of the business of the Egyptian Salt and Soda Company.

The whole importation of European soda-ash into Egypt probably does not exceed 1,000 tons a year, thus leaving about 9,000 tons to be placed on other markets. As has already been shown, the cost of production and the heavy transport charge to Alexandria do not put this concern in a position to compete either for the Mediterranean or the Far Eastern markets with European manufacturers already possessing the trade and in every way better situated for supplying these markets.

The British investor will, therefore, be well advised to leave this very speculative concern to the Swiss capitalists rather than pay them £125,000. for a business upon which, up to date, £60,000. has been expended.

I am, &c.,

6th Nov., 1899. EXPERT.

PETROLEUM AND THE SHIP CANAL.—The influence of the Canal on petroleum imports is clearly shown by the following figures. Previous to the construction of the Canal the oil imported from the United States was distributed from Liverpool. The Manchester waterway diverted this traffic, and afforded facilities for the discharge of oil from tank-steamers into tanks erected close to the Canal. Thence, with the aid of the Bridgewater Canal, the Midland towns become readily accessible. The accommodation provided at Eccles includes five tanks belonging to the Anglo-Caucasian Company, with a total capacity of 22,000 tons, being equal to 5,700,000 gallons, whilst the tanks owned by the Manchester Corporation, the Liverpool Storage Company, and the Bagnall Oil Company are capable, in the aggregate, of storing 21,400 tons, or nearly five and a half million gallons.

Correspondence.

**** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

TUNGSTIC BLUE.

(To the Editor of the Chemical Trade Journal).

SIR,—In reply to your correspondent "M.C.'s" request concerning Tungstic or Tungsten Blue, I have to say that this article is not a commercial product. Of late years it has been proposed to produce on pottery or porcelain a blue which has received the name of Tungsten Blue by using in the glaze a mixture of tungstate of barium and tungstate of soda.

Yours, etc.,

CHEMICUS.

Trade Notes.

A. G. FUR TREBERTROCHNUNG IN CASSEL.—As we go to press this week, we receive our full *verbatim* report of the special meeting of this company, held to refute the charges made against the directors, which we referred to in the leaderette in our issue of Oct 28th ult. Next week we shall deal with the matter in its entirety, both in our news columns and in our editorial capacity.

NITRATE STATISTICS.—The Permanent Nitrate Committee's public statistical circular for November states:—"Nitrate of soda—Total exports to Europe, October, 3,664,000 quintals; loading for Europe, November 1st, 2,400,000 quintals; imports, Europe, October, 46,150 tons; deliveries, Europe, October, 32,160 tons. Visible supply, Europe, November 1st: Stocks and afloat, 568 340 tons.

OIL MILLS BURNT OUT.—A destructive fire took place last week at Seacombe Oil Mills, which are situated close to Birkenhead Docks. The outbreak was first observed in a large warehouse stored with barrels of palm and linseed oil. Notwithstanding the efforts of the district fire brigades the flames spread rapidly owing to the inflammable nature of the material, and the mill and adjoining buildings were practically gutted. The damage will be heavy.

THORITE AND LYDDITE.—A new explosive, to which the name of thorite has been given, has been invented by Mr. Tuttle, an American engineer. The plant for its manufacture has been established at Sandy Hook, and this week a party of army officers and officials were shown the process of manufacture. Experiments showing the explosive power of thorite were also made. The officers believe that thorite will have effects as deadly as lyddite. It is hoped that a quantity will be turned out in time to be sent to General Otis for use in the present campaign. Mountain batteries with thorite shells should prove most effective against the Filipinos. Lyddite, now being used in the Transvaal, is a preparation of potassium picrate, and is practically identical with the French explosive, melinite. Picric acid, the essential constituent, is an intensely yellow poisonous coal tar product, which is used in dyeing. It is very trustworthy in skilled hands, but has probably not been tried by the Boers because their gunners lack the necessary training and practice. As an explosive it is enormously powerful, as experiments in England have proved. It breaks a shell up into very small fragments, destroying everything near, but the effects of the explosion are very local.

PETROLEUM LAMP ACCIDENTS.—The public control Department of the London County Council has issued a circular in which suggestions are given for securing safety in the use of lamps. The public are cautioned never to burn oil which has a flashing point of less than 100 deg. Fahr. Among other suggestions it is urged that lamps should be strongly made, and should he kept thoroughly clean. In choosing a lamp it should be seen that the reservoir is thick and strong, and is not made of thin glass or china; that the burner is strong, and is securely connected to the reservoir by screwing into the collar; and that the lamp has a broad and heavy base. The wick should be soft, and not tightly plaited, and should quite fill the wick tube without having to be squeezed into it. The wick should be frequently renewed, and before being put into lamps it should be dried at a fire and then immediately soaked with oil. In managing a lamp, care should be taken that the reservoir is filled with oil before the lamp is lit; that the burner is kept thoroughly clean, that all oil is wiped off, and all charred wick and dirt carefully removed before lighting; and when first lit the wick is partially turned down, and then gradually raised; that the wick is not left turned down; and in extinguishing lamps which have no extinguishing apparatus the wick should be turned down until there is only a small flickering flame, and a flat piece of metal should then be placed on the top of the chimney, so as to entirely close it. Cans and bottles used for oil should be free from water and dirt, and should be kept closed.

THE COMMERCIAL INTELLIGENCE BUREAU.—The Commercial Intelligence Office— the new department of the Board of Trade which is to supply merchants and manufacturers with information as to trade and markets all over the world is open. The department is housed in temporary offices at 50, Parliament Street. Besides collecting information from the Colonies and India, the department, it is expected, will send special missions to foreign countries as occasion requires, or procure special reports by experts. The department should meet two classes of exceptions to the present system—that of the traders who say the consuls are too busy on the diplomatic side to devote a proper attention to trade, and that of the consuls who say that the traders worry them with futile inquiries, and never read their reports. If ever we are to reap commercial benefits, such as our American cousins reap from the Philadelphia Commercial Museum, do let British manufacturers keep this Bureau busy—positively "humming."

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are steady and inclined to be firmer, 90's now being quoted 10d. and 50/90's. 11d. Other tar products are firm. Carbolic acids are in good demand at last quotations. Solvent naphtha is strong, 1s. 4d. being asked for forward sales Anthracene weak at 3½d. to 4d. for 30% A and 2½d. to 3d. for B. Pitch steady at 34s., f.o.b. East Coast.

Sulphate of ammonia continues to fall away in price. Beckton leading the van in this direction by offering at £10. 8s. 9d. London (outside makes) are quoted £10. 10s., Hull £10. 8s. 9d. to £10. 10s., and Leith £10. 10s. to £10. 11s. 3d.

MISCELLANEOUS CHEMICAL MARKET.

Chemicals generally continue in brisk demand, and there is great activity in all branches of the trade. Bleaching powder sells freely, both for prompt and forward delivery; price still remains at £5. 10s, nett, rails, makers' works. Caustic soda of all grades strong, and sales are satisfactory; prices to-day: 76/77%, £9. 15s.; 70%, £9 ; and 60%, £8.; all makers works; £11. 10s. is quoted for 98%. Salt cake and soda crystals unchanged. Chlorates of potash and soda have fair inquiry, but prices are flat Nitrate of soda quiet at £7. 15s. to £8., according to quality. Sulphate of copper moves fairly well at £25. Caustic potash and carbonate are unusually scarce, and prices as a consequence strong; the demand also is above the average. Lead salts have a steady demand, and prices are inclined to advance. Acetates of lime in rather better request; £5. 15s. for brown, and £9. for grey are to-day's values Green copperas finds a better market, with improved prices. White powdered arsenic has a strong position, and stocks are firmly held; £19. 5s. to £19. 10s. are prices which have been paid during the last few days. Tartaric acid has a slight improvement, and is quoted to-day 1s. per lb. to 1s. 1d. Tannic acid in unusually heavy demand, and prices have been raised 1d. per lb. Tartar emetic rising; 7⅜d. for 43/44% is generally quoted. Oxalic acid sells slowly at convention rates. In textile chemicals, the demand continues good.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is dull, and sellers are accepting lower prices for certain qualities. Olive is in limited supply, and holders are very strong. Linseed is rather quiet, but prices for Liverpool makes in export casks remains at 24s. 6d. to 25s. Cottonseed is a little inclined to ease off, though holders of Liverpool refined still ask 19s. to 19s. 6d. Castor oil is well held, with possibly a rather better demand. Sales of good seconds Calcutta are reported at 3 1/16d. to 3⅛d. First pressure French is quoted 2⅞d. to 2 15/16d. Tallow is dull and slow of sale. Resin is firm, common being the turn dearer at 4s. 3d. cwt.; other grades firm and unchanged. Spirits of turpentine are dull for spot business, but the market generally keeps steady at 37s. 9d cwt. Petroleum is slow to sell at 7¼d. to 8⅜d. for American, and 6⅛d. to 6½d. for Russian refined.

CAKES.—Transactions in all descriptions have been on only a moderate scale, but values of imported descriptions generally are without change to record. In linseed we report American Western on the spot and River Plate, but the former are still offering at £7. 8s. 9d. to £7. 12s. 6d., whilst for the latter sellers are now asking £7. 10s. per ton. Bombay are also the turn in sellers' favour at £8. to £8. 5s., with a fair inquiry going on, but Russian remain purely nominal in value for want of stock here. Liverpool makes are the turn in buyers' favour, and have only a moderate sale at £8. 10s. to £9. per ton, according to brand. There is no alteration in quotations of decorticated cottonseed, only moderate sales being reported in American at £5. 15s. to £6 2s. 6d. for good to choice brands, according to quality, and not much trade doing in Liverpool makes at £6. 12s. 6d. to £6. 15s. per ton, according to brand. Undecorticated Liverpool makes are the turn against sellers at £4. 17s. 6d. to £5. 10s according to brand, but Egyptian remain nominal at £4. 17s. 6d. to £5 per ton for want of stock.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire - common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s; Devonshire, 40s. to 45s.; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

THE METAL MARKETS.

LONDON, WEDNESDAY.—Pig iron firm: Scotch warrants closed at 71s. 8d.; Middlesbrough, 69s. 10½d. cash; and hematite, 78s. 1½d. Copper easier: Chili bars, G.O.B.'s and G.M.B.'s closed at £74 7s. 6d. to £74. 12s. 6d. cash; and £74. to £74. 5s. three months. Tin weaker: Straits closed at £138. 10s. to £139 cash; and £137. 15s. to £138. 5s. three months; Australian, £138. 10s.; English ingots, £142. to £142. 10s. Lead steady: Spanish, £17. to £17. 5s.; English, £17. 10s.; Silesian spelter, ordinary, £21 2s. 6d. to £21.5s. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first and second hands, £9. 7s. 6d. *Copper Shares* quiet: Cape, 4 15/16 to 5 1/16; Copiapo, 3 11/16 to 3 13/16; Libiola, 1½ to 1¾; Mason & Barry, 3¾ to 4; Rio Tinto, 46 7/16 to 46 9/16; Tharsis, 8¼ to 8⅜.

GLASGOW, WEDNESDAY.—Market steady and a fair business. Scotch done at 71s. 10d., 71. 10½d., and 71s. 8d. cash; also at 72s. 1½d., 72s. 2½d., 72s., and 72s. 0½d. month; buyers, 71s. 8d. cash; sellers, ½d. more. Cleveland, buyers. 69s. 2½d. cash; sellers, 70s. Cumberland hematite done at 78s. to 78s. 3d. cash; also at 78s. 4½d., 78s. 8d., and 78s. 6d. month; buyers, 78s. 1½d. cash; sellers, 78s. 2¼d. Middlesbrough hematite, buyers, 79s. 9d. cash.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Markets for linseed and cotton oils close in much the same position as a week ago. The stocks of seeds month ending Oct. 31st are practically the same as the stocks month ending September, but the prospects of new season's crops coming into the market are much nearer; in fact, they are now upon the market. The stocks of seed in Hull, 31st Oct., were:—Linseed, 1,220 qrs. against 1,620 qrs. September; rapeseed, 7,466 qrs. against 6,270 qrs; cottonseed, 2,115 tons against 2,355 tons; whilst the imports during the month were:—Linseed, 67,542 qrs. against 88,694 qrs. September; rape seed, 5,220 qrs. against 8,402 qrs.; cottonseed, 17,840 tons against 8,088 tons. The exports of cotton oil for the week have been 97 tons—11 tons Belgium, 5 Denmark, 20 France, 31 Germany, 26 Holland, 4 Sweden; and is quoted 16s. 1½d. refined, spot naked; 16s. 3d. November/April; casks, £1., and barrels, £1. 10s. per ton extra. The exports of linseed oil have been 26 tons—7 tons Belgium, 1 Denmark, 4 Germany, 7 Holland, 7 Norway; and prices are 22s. per cwt. spot naked; 21s. 10½d. November/December; and 21s. 3d. first four months; refined and boiled, £1. to £1. 10s. per ton extra. Olive oil very firm, and quoted from £33. to £37. per tun, according to origin. Olive oil soap is in much the same position, makers only quoting for early reply from £18. 10s. per ton, ex quay nett. Resins unchanged. Castor oil quieter, but unaltered. Turpentine easier, from 37s. 6d. Tallow, 28s. Yorkshire brown grease, very scarce, from £9. to £10. per ton.

CAKES.—The market for feeding stuffs is better, good demand for which may have something to do with the lower price of oils. Linseed cakes steady; 95% pure, £8. 15s. to £8. 17s. 6d. Oil cakes (linseed), £7. 10s. to £7. 12s. 6d.; Russians, £8. to £8. 5s. Cotton cakes firm; best makes, £4. 12s. 6d. to £4. 15s.; seconds, £4. 10s. to £4 12s. 6d.; decorticated, none. Rape cakes: Black Sea, £4. 10s.

PAINTS.—Makers find demand very quiet, which they expect. Prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

As a rule the market here in the ordinary chemicals keeps very firm, and as contracting goes on for the supplies of next year the tendency is still to an increase. Caustic soda has made a further advance, and supplies of alkali, soda ash, and soda crystals are very much restricted, and sometimes not procurable at all except through resellers. In the mineral oil and paraffin section, the feeling continues generally strong. Solid paraffins are not unlikely to go up further. Deliveries of burning oil out of season's contracts are already considerable, and will now for a time be subject to a daily increase. Sulphate of ammonia droops away, at nothing like a rapid rate, but every week tells to an appreciable extent. To-day the quotation is 2/6 down from Tuesday of last week. Sugar importing into Greenock, last week, was a blank.

Chief prices current are :—Alum in lump, £4 5s. to £4. 15s. nett, Glasgow; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b. Glasgow); bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett. Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 5s., all nett, Liverpool; chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5. 10s.; 885°, £6. to £6. 10s. and 890/895°, £6. 15s. to £7. salammoniac, first and second white, £40 and £38. nett, any port; saltcake, 26s.; soda crystals, £2 7s. 6d. to £2. 15s., basis, nett, Tyne; soda ash, £4. 10s. to £4. 15s., nett Tyne; sulphate of ammonia, £10. 12s. 6d. prompt, f.o.b. Leith; sulphate of copper, £25. to £25. 5s, less 5% Liverpool; white alkali, £5. to £5. 7s. 6d. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are in fair demand with a steady trade. Soda crystals unaltered at £2. 17s 6d. per ton, gross weight, locally. Caustic, 70%, £9., to £9. 5s., 76/77%, £10. per ton. Sulphur £4. 15s. per ton.

Bleaching powder, softs, £6. per ton, nett; do, hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4 15s. per ton, nett; soda ash, 48%, £4 10s. per ton, nett; do, 50%, £4. 12s. 6d. per ton, nett; do., 52%, £4. 15s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. per ton, nett; do., 50%, £5. 3s. 9d. per ton, nett; do 52%, £5. 7s. 6d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £2. 12s. 6d. per ton, nett; do, 100° Tw., £3. per ton, nett; do., 140° Tw., £3. 7s. 6d. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The coal trade is very firm, and there is an excellent demand for all quantities of coal. To-day's prices are :—Best Northumbrian steam, 12s 6d. to 13s. per ton; second qualities, 11s. 6d. to 12s. per ton; small steam, 7s. 6d. to 8s. per ton; bunker coals, 12s. 3d. to 12s. 6d. per ton; coke, 25s. per ton.

New Companies.

Transatlantic Oil Co., Ltd.—CAPITAL £2,000. in £1. shares. This company has been formed to carry on the business of manufacturers and refiners of and dealers in oils, paints, varnishes, pigments, drugs and dyeware, manufacturers of and dealers in proprietary articles, etc. The number of directors is not to be more than three; the subscribers are to appoint the first.

Callide Coal Synd., Ltd.—CAPITAL £40,000. in £5. shares. This company has been formed to adopt an agreement with H. G. Otty, W. T. Nye, L. S. Robertson, and W. Spier, and to carry on in Queensland or elsewhere the business of coal and general miners, patent fuel manufacturers, gas makers, chemical manufacturers, dye makers, etc. The subscribers to the memorandum of association are: A. C. Tupp, I.C.S., 17, Devonshire Terrace, Lancaster Gate, W.; W. Spier, Royal Palace Hotel, Kensington, W., accountant; R. L. Harrison, 1, New-court, Lincoln's Inn, W.C., solicitor; C. Pontifex, 5, Wetherby Gardens, S.W., K.C.I.E; C. J. S. Harper, 1, New-court, Lincoln's Inn, W.C, solicitor; F. C. R. Sneath, 1, New-court, Lincoln's Inn, W.C., solicitor; E. E. Winterbotham, 1, New-court, Lincoln's Inn, W.C., solicitor. Registered office, 100, London Wall, E.C.

Egyptian Salt and Soda Co., Ltd.—CAPITAL £301,000. in £1. shares (1,000 def.). This company has been formed to acquire the undertaking of "La Societe des Soudes Naturelles d' Egypte," (incorporated in Egypt under the local laws), to adopt an agreement with the Egyptian Synd., Ltd., to acquire, own and work salines and natron deposits, and to carry on the business of miners and manufacturers of and dealers in salt, soda, iodine, chemicals, minerals, and other natural products. The subscribers to the memorandum of association are:—H. P. Smith, 22, Westbourne Park-crescent, W., secretary; E. Fairweather, St. Laves, Heathfield-road, Croydon, secretary; F. C. Tuplin, 60, Fenchurch-street, E.C., clerk; J. S. Dare, 59 Weston-road, Crouch End, assistant secretary; A. Thorne, 116, Camden-street, N.W., accountant; F. T. Knight, 39, Millbrook-road, Brixton, S.W., clerk; J. A. Ellis, 32, Dawes-road, Fulham, S.W., clerk. Registered office, 3, Princes-street, E.C.

Maypole Co. (1899), Ltd.—CAPITAL £200,000. in £1. shares (50,000 pref.). This company has been formed to acquire the business of the Maypole Co., Ltd. (incorporated in 1896), to adopt an agreement with said company and its liquidator, and to carry on the business of soap manufacturers, merchants, and factors, and manufacturers of and dealers in chemical, medicinal and toilet articles and other commodities. The subscribers to the memorandum of association are: H. L. Bateman, 58, Coleman-street, E.C., clerk; H. T. P. Nichols, Lingfield villa, 13, Chandos-road, Stratford, clerk; H. Folliott, 141, Lordship-road, N., accountant; H. T. Forfeitt, 13, Ashville-road, Leytonstone, clerk; J. Malley, 63, St. Paul's-road, Camden-square, N.W., clerk; M. Hicks, Abingdon House, Bromley, Kent, gentleman; C. T. Twort, 35, Canterbury-road, Brixton, S.W., clerk. Registered office, 98, High Holborn, W.C.

Gazette Notices.

PARTNERSHIPS DISSOLVED.

J. KAY, T. R and H. KAY, soap manufacturers, Ramsbottom, under the style of J. Kay & Sons, so far as regards J. Kay.

C. RUSHWORTH, G. B. WOOD, and C. H. H. NORRIS, chemical manufacturers, Sowerby Bridge, under the style of W. J. Norris & Bro., so far as regards G. B. Wood.

L. APPLEGATE and E. MAYBURY, oil refiners, under the style of E. H. Tallmadge and Co., Liverpool.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending October 28th.

Acetic Acid—

Holland,	50 pks.	R. W. Greeff & Co.
,,	90	A. & M. Zimmermann
,,	10	F. Boehm
Germany	17	Argo S. S. Co

Acetone—

Austria,	5 pks.	Stein Brs.
Germany,	15	J. Norrenberg & Co.
,,	10	Matthews & Luff

Alkali—

France,	5 t. 8 c.	J. Harrison
Canada,	1 17	J. Barber & Co.

Alum—

Holland,	855 pks.	J. White
Germany,	100	R. W. Greeff & Co.

Ammonia—

Germany,	£55	H. Lorenz

Antimony Ore—

Turkey,	12 t.	J. Bamber

Arsenic—

Germany,	25 pks.	British Anti-Fouling Co.

Arsenic Acid—

Belgium,	1 pk.	T. Palmer

Barium—

Germany,	4 pks.	H. Johnson & Sons

Barium Chlorate—

Sweden,	20 pks.	G. Boor & Co.

Baryta—

Holland,	£150	Cotton Powder Co.

Barytes—

Holland,	38 pks.	Wilkinson, Heywood, & Co.
,,	200	W. Harrison & Co.
Belgium,	12	,,
Germany,	22	Page, Son, & East
,,	2	H. Lambert
,,	11	C. Zerremia & Co.

Bleaching Powder—

France,	39 pks.	J. M. Steel & Co.

Bones—

Canaries,	5 t.	Wilson & Coventry

Bromine—

Germany,	20 pks.	A. & M. Zimmermann

Calcium Carbide—
Norway, £250 H. Wisheman

Caoutchouc—
France, 1 t. 14 c. Van Oppen & Co.
,, 5 E. Flageollet & Co.
Thursday Is., 1 Prop. Bull Wf.
Lamos, 4 L. & I. D. Jt. Co.
Cape, 10 Hammond & Co.
Congo, 10 W. A. Collins
Madagascar, 1 Prop. Bull Wf.
Zanzibar, 1 17 Forbes, Forbes, & Co.
,, 2 29 Hale & Son
,, 3 9 L. & I. D. Jt. Co.
Straits, 5 Butler's Wf., Ld.
,, 33 3 E. Boustead & Co
,, 5 1 Huttenbach & Co.
Germany, 1 3 Wallace Brs.
,, 1 Major & Field
Holland, 1 2 Anderson Weber, & Smith
Ibo, 3 L. & I. D. Jt Co.
,, 1 7 Forbes, Forbes, & Co.
Aden, 5 Clarke & Smith

Chemicals *(otherwise undescribed)*
Germany £16 D. T. Domeier & Co.
,, 47 L. & I. D. Jt. Co.
,, 380 S. C. Jones
,, 6 H. Lambert
,, 3 Burgoyne & Co.
France, 18 City Coml. Wf., Ld.
,, 12 Rosenberg, Loewe, & Co.
Holland, 12 Phillips & Graves
,, 210 Netherlands S. B. Co.
,, 25 Hernu, Peron, & Co.
Belgium, 10 T. Palmer
,, 8 Sawer, Sons, & Co.
,, 20 C. Atkins & Nisbet
,, 233 John Cockerill Line
N Zealand, 7 L. P. D. Co
U. States, 550 S. C. Jones

Citrate of Lime—
Italy, 10 pks. Howards & Sons

Coal Products—
Pitch
Germany, 48 cks. Price & Co.
U. States, 2 brls. Johnson & Phillips
Tar
N. Russia, 221 brls. W. Beard & Son
,, 259 Linck Moeller & Co

Colours—
Germany, 2 pks. Craven & Co

Cream of Tartar—
France, 3 pks. Vokins & Co., Ld
,, 10 F. C. Devon & Co.
,, 4 C. Atkins & Nisbet
,, 4 B. & F. Wf. Co., Ld.
Spain, 5 ,,
Holland, 28 Kirkpatrick, Barr, & Co.

Dyestuffs—
Argols
Italy, 131 pks. Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 8 pks. Sperling & Williams
,, 10 Swanston & Co.
Cutch
Straits, 150 pks. Union L. Co., Ld.
Extracts
Denmark, 4 pks. M. D. Co.
,, 10 A. F. White & Co.
Gambier
Straits, 2,821 pks. W. Pope & Co.
,, 504 Beresford & Co.
,, 449 Prop. Hay's Wf.
Indigo
E. Indies, 4 chts. L. & I. D. Jt. Co.
Belgium, 1 cs. M. D. Co
Sumac
Italy, 600 pks. J. Kitchin, Ld.
,, 48 R. Waters
Tanners' Bark
Belgium, 10 t. Leach & Co.
,, 26 Hicks, Nash, & Co.
Adelaide, 31 Anning & Cobb
Valonia
A. Turkey, 35 t. A. & W. Nesbitt
,, 23 Adam Brs.
,, 25 Anning & Cobb

Farina—
France, 8 pks. E. Flageollet, Parent, & Co.
,, 3 Rosenberg, Loewe, & Co.
Holland, 145 J. Barber & Co.
,, 100 Dunlop Brs. & Co.
,, 200 R. Bennett & Co.
,, 200 R. G. Hall & Co.
,, 70 J. Knill & Co.
Germany, 50 M. D. Co,

Glucose—
U. States, 250 pks. 250 c. Trier, *Meyer, & Co.*
,, 200 2,000 Boake, Roberts, & Co.
,, 500 500 J. Budgett & Son
,, 35 210 Page, Son, & East
,, 500 500 Fellows, Morton, & Co.
,, 500 500 E. Herring, Giles, & Co.
,, 1,500 1,500 E. Thompson & Co.
,, 300 300 Pearce, Pelly, & Co.
,, 500 500 Deering & Robottom
,, 300 300 C. Tennant, Sons, & Co.
,, 750 1,600 L. Norman & Co., Ld.
,, 250 250 S. Barrow & Bro.
,, 8,600 9,150 R. G. Hall & Co.
,, 1,910 2,220 C Barnard
Germany, 5 40 J. Knill & Co.
,, 30 240 Deering & Robottom

Glue—
France, £158 Mory & Co.
,, 980 Prop. Hay's Wf.
Germany, 23 L. & I. D Jt. Co.
,, 230 L. & N. W. Rly. Co.
,, 600 Deering & Robottom
,, 34 M. D. Co.
,, 45 H. Lambert
U. States, 25 Ldn. Prcls. Del. Co.
,, 270 W. Dixon
Belgium, 120 Leach & Co.
,, 565 G. E. Banes
Russia, 250 M. H. Voss
Sweden, 280 W. W. Jones & Co.

Glycerine—
France, £400 H. Hill & Sons
Holland, 400 J. Barber & Co.

Guano—
Germany, 4 t. Argo S. S. Co.

Gutta Percha—
Straits, 20 t Prop. Bull Wf.
,, 4 12 c. W. Pope & Co.
,, 41 H. W. Jewsbury & Co.
,, 7 16 Huttenbach & Co.
,, 31 15 Gilman Brs. & Co.

Lead Acetate—
Germany, 30 pks. F. Boehm

Limespar—
Germany, £50 L. & I. D. Jt. Co.

Magnesia—
Holland, 17 pks. A. & M. Zimmermann

Manganese Ore—
Germany, 10 t. Blackwell & Co.
,, 28 C. Hay & Co.
,, 16 T. H. Lee

Manure—
Germany, 54 t. F. W. Berk & Co., Ld.
E. Indies, 174 E. Packard & Co.

Methylic Alcohol—
Canada, 2,350 g T. Jones & Co.
Germany, 500 J. Norrenberg & Co.
U. States, 1,459 H. Wallace & Co.
France, 1,786 E. J. Catlin
,, 520 Lister & Biggs

Molasses—
U. States, 58 cks. 280 c. Deering & Robottom
,, 500 1,750 L. & I. D. Jt. Co.
,, 459 2,859 Falkenburg & Hesse

Ochre—
France, 118 pks W. Harrison & Co.

Paraffin Wax—
U. States, 120 brls. Atlantic Transport Co.

Phosphates—
Belgium, 186 t. Lawes Chemical Manure Co.
France, 300 A. Hunter & Co.

Potash—
Belgium, 13 pks. T. H. Lee
Germany, 1 1 ck. ,,

Potassium Bicarbonate—
Holland, 7 pks. A. & M. Zimmermann
Germany, 1 t. H. Lambert

Potassium Carbonate—
Germany, 5 t. Charles & Fox
,, 10 Petri Brs.

Potassium Chlorate—
Sweden, 300 pks. G. Boor & Co.

Potassium Oxalate—
Holland, 20 pks. R W. Greeff & Co.

Potassium Sulphate—
Germany, 50 pks. F. W. Berk & Co., Ld.

Pyrogallic Acid—
Germany, 16 pks. L. & I. D. Jt. Co.

Red Lead—
Holland, 35 pks. D. Storer & Sons
Germany, 10 Burrell & Co.

Salt—
Portugal, 19 t. L. & I. D. Jt. Co.

Saltpetre—
Germany, 10 cks. T. H. Lee
E. Indies, 2,055 bgs. Lucas & Spencer's Wf.

Soda—
Belgium, 77 t. 6 c. R. Waters

Soda Crystals—
Belgium, 26 t. Leach & Co.
Germany, 11 T. Palmer
,, 12 pks. R. W. Greeff & Co.

Sodium Hyposulphite—
Holland, 200 pks. R. W. Greeff & Co.

Starch—
U. States, 100 pks. R. Bennett & Co.
,, 7,400 J. Forsey
,, 3,400 Ohlenschlager Brs.
,, 250 R. G. Hall & Co.
Germany, 6 T. H. Lee
,, 1,320 Horne & Co.
Belgium, 150 J. Barber & Co.
,, 115 Leach & Co.
,, 857 T. H. Lee
,, 400 T. Ronaldson & Co.
Holland, 30 G. S. N. Co.
,, 2,515 Little & Johnston

Stearine—
Belgium, 254 bgs. Hore & Scrivener
,, 127 J. W. Baker
Germany, 10 cs. T. H. Lee
Holland, 18 cks. W. von Romberg

Sulphur—
Italy, 11 t. J. Kitchin, Ld.
,, 60 G. Boor & Co.
,, 200 A. F. White & Co.
,, 13 W. G. Jacobs
,, 5 J. Puddy & Co.

Sulphuric Acid—
Germany, 2 pks. L. & I. D. Jt. Co.
,, 25 A. Frey & Co.

Sulphate (Alumina)—
Germany, 72 pks. H. Wallace & Co.

Tallow—
U. States, 24 cks. W. Dixon
,, 150 Price's Pat. Candle Co.
,, 7 H. & G. Dutfield
,, 17 kgs. ,,
,, 10 cs. Lunham & Moore
,, 90 pails Armour & Co.
,, 15 bxs. ,,
N.S.W., 35 cks. Aust Meat. Co.
,, 59 J. R. Francis & Co.
,, 50 Hoare, Wilson, & Co.
,, 11 trcs. M. Bergl & Co.
Germany, 300 C. S. Lovell
Belgium, 11 cks. J. Harrison
Queensland, 149 J. Owen
N. Zealand, 573 N. Z. L. & M. A. Co.
France, 132 bgs. H. Hill & Sons
Holland, 136 ,,

Tartar—
Italy, 10 pks. Fellows, Morton, & Co

Tartaric Acid—
Holland, 20 pks. Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 8 pks. G. S. N. Co.
,, 5 Netherlands S. B. Co.
,, 20 Thames S. T. & L. Co., Ld.
Germany, 39 Steinhoff, Sons, & Co.

Varnish—
U. States, 3 pks. Beck & Pollitzer
,, 63 J. R. Francis & Co.
,, 79 Atlantic Transport Co.
Germany, 5 Argo S. S. Co

Waste Salt—
Germany, 22 t. Luke & Bailey

White Lead—
Holland, 40 pks. Burrell & Co.
,, 45 Perkins & Homer
,, 50 W. Balchin, Ld.
,, 20 J. R. Francis & Co.
,, 20 Kerestedji & Co.
,, 38 A. & M. Zimmermann
Belgium, 22 Leach & Co.
,, 55 R. Steuert
Germany, 23 H. B. Alder & Co
,, 91 Perkins & Homer
,, 20 H. Keller & Co.

Wolfram Ore—
Queensland, 11 t. J. Blyth & Co.

Wood Pulp—
Sweden, 60 pks. M. Dk. Co.
,, 720 W. G. Taylor & Co.
,, 250 Tough & Henderson
,, 100 Henderson, Craig, & Co.
,, 126 Andrews & Co., Ld.
,, 100 Johnsen & Jorgensen
,, 480 A. E. Reed & Co.
Norway, 150 ,,
,, 32 C. S. Lovell
,, 410 C. B. R. Maltby
Denmark, 160 Johnsen & Jorgensen
U. States, 298 A. E. Reed & Co.
,, 944 W. G. Taylor & Co.
,, 51 Beck & Pollitzer

Zinc Oxide—
U. States, 400 pks. M. Ashby, Ld.
Holland, 40 ,,
,, 12 Robinson, Roberts, & Co.
Germany, 19 R. W. Greeff & Co.
,, 50 Prprs. Dowgate Dk.
,, 48 J. Matton

Zinc White—
Germany, 80 pks. M. Ashby, Ld.

LIVERPOOL.

Week ending October 26th.

Acetate of Lime—
New York. 693 bgs.

Aluminium—
New York, 22 cs. T. Ashbury

Barytes—
Antwerp, 220 bgs. / 58 cks.
Hamburg, 5 / 100 bgs.

Bone Ash—
Campana, 367 bgs. River Plate Meat Co.

Bones—
Alexandria, 65 t. / 140 bgs.

Borate of Lime—
Antofagasta, 2,806 sks.
Arica, 517
Mollendo, 5,714

Castor Oil—
Marseilles, 121 cks. / 7 brls.

Chalk—
Rouen, 3 bgs. Co-op. W'sale Society, Ld.

Chemicals *(otherwise undescribed)*
Antwerp. 1 ck.
Bremen, 4

Coal Products—
Naphtha
New York, 7,341 brls.
Pitch
Marseilles, 42 cks.

Colours—
Antwerp. 5 cks. / 12 brls.
Hamburg, 6
Marseilles, 1 pk.

Cottonseed Oil—
N. Orleans. 1,880 brls.

Cream of Tartar—
Barcelona, 5 cks.
Oporto, 5 Sachse & Klemm

Dyestuffs—
Cochineal
Gd. Canary, 27 bgs. Swanston & Co.
Cutch
Rangoon, 1,223 bxs.
Extract
Philadelphia, 25 brls.
Rouen, 222 cks. Co-op. W'sale Society, Ld.
Marseilles, 180
Bordeaux, 100 R. J. Francis & Co.
Havre, 2 cs. 21 Cunard S.S Co.
Colon, 50 D. Midgley & Sons
St. Nazaire, 100
Hamburg, 25 bgs. / 20 cs.
New York, 20 brls. McArthur & Co.
Fustic
Savanilla, 490 logs
Saffron
Valencia, 1 cs.
Sumac
Marseilles, 50 bls. Schrempft & Co

Valonia
Zante, 20 t.
" 169 bgs.
" 1 Papayanni & Jeremias
" 92½ t. Barry Brs.
Smyrna, 19 bgs.

Farina—
Fiume, 310 bgs.
Havre, 500 sks. Cunard S. S. Co.

Glucose—
Boston, 150 brls.
New York, 100
Dunkirk, 233 bgs.

Glue—
Rouen, 60 cs.
2 cks. Co-op. W'sale
20 bgs. Society, Ld
St. Nazaire, 2 cs.
11 cks.

Glycerine—
Marseilles, 25 dms.

Manganese Ore—
Coquimbo, 112 t.

Molasses—
Alexandria, 1,250 brls.
N. Orleans, 2,900

Paraffin Wax—
New York, 75 brls. Anglo-Amer. Oil Co.
Rangoon, 70 bgs.

Phosphates—
Bougie, 2,200 t.
Ghent, 200

Potash—
Rouen, 70 cks. Co-op. W'sale Society, Ld.

Pyrites—
Huelva, 1,979 t. Matheson & Co.

Rosin—
Baltimore, 1,551 brls.
Bordeaux, 2 cks.
Curacao, 17 bgs. T. Nickels & Co.

Saltpetre—
Hamburg, 4 cks.
60 kgs.
20 brls.

Soap—
New York, 1,025 bxs. B. T. Babbit
Smyrna 135
Marseilles, 50 W H. Flett & Co.
" 746 pks.
Antwerp, 1 cs.
Naples, 234
Zante, 1
Boston, 19 Evans, Sons, & Co.
Lagos, 2 kgs. 1

Soap Lyes
Marseilles, 10 cks.
48 dms.
Barcelona, 10 brls.

Starch—
New York, 50 brls. J. Armstrong & Co.
" 18 Ferguson & Co.
" 60
" 400 bgs.
" 1 cs. Colby & Co.
Hamburg, 76
Antwerp, 580
Boston, 110 bgs.

Stearine—
Antwerp, 53 bgs.
Boston, 13 tcs.
Rouen, 80 bgs. Co-op W'sale Society, Ld.

Sulphur—
Catania, 185 brls.
2 bls.
50 t.
575 bgs.

Tallow—
Boston, 67 tcs. Lever Brs., Ld.
" 65
Campana, 477 cks. River Plate Meat Co.

Tartar—
Bordeaux, 82 cks.

Ultramarine—
Rotterdam, 20 cks.

Varnish—
New York, 20 brls.

Waste Salt—
Hamburg, qnty. E. Bramwell & Sons
" 500 bgs. & qnty.
" qnty. H. D. Pochin & Co.

Zinc Oxide—
Antwerp, 54 brls.

MANCHESTER.

Week ending October 28th.

Antimony Salts—
Rotterdam, 4 cks.

Asbestos—
Montreal, 500 bgs.
Rotterdam, 7 crts.

Barium Chloride—
Rotterdam, 6 cks.

Barytes—
Hamburg, 11 cks.

Calcium Carbide—
Gothenburg, 10 dms.

Caustic Lye—
Hamburg, 40 dms

Caustic Potash—
Treport, 28 dms.

Coal Products (*otherwise unnes.*)—
Rotterdam, 2 cks.

Coal Products—
Alizarine
Rotterdam, 95 cks. 35 brls.
Aniline
Rotterdam, 4 cks.
Aniline Colours
Rotterdam, 41 cks. 18 cs.
7 b ls.
Aniline Salt
Rotterdam, 37 cks.

Colours—
Hamburg, 27 cks.
Rotterdam, 72 28 cs.

Cream of Tartar—
Rotterdam 10 kgs.
4 cks.

Dyestuffs—
Extract
Rotterdam, 5 cks.
Treport, 5
Indigo
Rotterdam, 5 cks. 9 chts.

Farina—
Hamburg, 200 bgs.
Rotterdam, 1,100 N. W. Jackson
" 834
Stettin, 2,525 Browne, Geveke & Co.
" 1,340

Glucose—
New York, 200 brls.
Rotterdam, 4 cks.
Stettin, 1,001 bgs.

Glue—
Rotterdam, 20 bgs.
Treport, 5 cks.

Litharge—
Rotterdam, 39 cks.

Lithopone—
Rotterdam, 28 cks.

Methyline—
Treport, 26 cks.

Ochre—
Treport, 56 cks.

Oxalic Acid—
Rotterdam, 24 cks.

Paint—
Alexandria, 38 dms.
New York, 1 cs.

Paraffin Wax—
New York, 1,080 brls.

Phosphates—
Savannah, 1,455 t.

Potash—
New York, 1 brl.

Potassium Carbonate—
Treport, 5 cks.

Red Lead—
Rotterdam, 15 cks.

Saltpetre—
Hamburg, 7 cks.

Soap—
Alexandria, 1 cs.

Starch—
Hamburg, 156 cs.
Montreal, 280 brls.
New York 338 bgs.
Rotterdam, 10 cs.

Tannic Acid—
Hamburg, 7 cks.

Tartaric Acid—
Rotterdam, 38 cks.

Ultramarine—
Rotterdam, 4 cks.

Waste Salt—
Hamburg, qty.

White Lead—
Treport, 12 cks.

Wood Pulp—
Drammen, 1,950 bls.
Gothenburg, 2,980 406 pks.
" 1,086 bdls.
Hamburg, 107 180
Rotterdam, 4 rolls
Stettin, 75 bls.
Tofte, 1,680

Zinc Oxide—
Hamburg, 5 cks.
Rotterdam, 100

HULL.

Week ending October 28th.

Acetate of Lime—
New York, 230 bgs. Wilson, Sons, & Co., Ld.

Antimony—
Dunkirk, 4 cks. Wilson, Sons, & Co., Ld.
Trieste, 120 brls. "

Barytes—
Bremen, 37 cks.

Castor Oil—
Antwerp, 56 brls.

Chemicals (*otherwise undescribed*)
Christiania, 10 cks.
Stavanger, 210 bgs. Wilson, Sons, & Co., Ld.

Chromium Fluoride—
Rotterdam, 15 cs. Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 19 brls. Hull & Netherlands S. S. Co
5 cks.
110 pks
Creosote Salt
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.
2 pks.
Pitch
Antwerp, 4 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 28 Hull & Netherlands S. S. Co.
Tar
Konigsberg, 200 brls.

Colours—
Amsterdam, 20 cks.
Antwerp, 11 pks. Wilson,
15 brls. Sons, & Co., Ld.
Bremen, 1 ck. J. Pyefinch & Co.
Dunkirk, 12 Wilson, Sons, & Co., Ld.
Ghent, 20
Hamburg, 5 Sissons Brs. & Co.
Rotterdam, 14 1 cs.
418 pks Hull & Netherlands S. S. Co.
9 brls.
2 bxs.

Dyestuffs—
Extract
Dunkirk, 8 cks. Wilson, Sons, & Co., Ld
Fiume, 70 brls.
Rouen, 27 cks. "
Fustic
Trieste, 5 t. Wilson, Sons, & Co., Ld.
Sumach
Palermo, 1,550 bgs. Wilson, Sons, & Co., Ld.
" 200
Sumach Extract
Trieste, 19 brls. Wilson Sons, & Co, Ld.

Farina—
Hamburg, 100 bgs.
Harlingen, 725 brls. Hull & Netherlands S. S. Co.
Stettin, 100 bgs. Wilson, Sons, & Co., Ld.

Glucose—
New York, 360 brls. Wilson, Sons, & Co, Ld.
Rotterdam, 60 bgs. Hull & Netherlands S. S. Co.

Glue—
Hamburg, 145 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 10 Hull & Netherlands S S Co.
Rouen, 22 brls. Wilson, Sons, & Co., Ld.
Trieste, 20 "

Glue Stock—
Hamburg, 155 bls. Wilson, Sons, & Co., Ld.

Lead Acetate—
Hamburg, 8 cks. Bailey & Leetham, Ld.
Stettin, 17

Logwood—
Hamburg, 60 bgs. Wilson, Sons, & Co., Ld.

Manganese Borate—
Hamburg, 1 ck.

Paraffin Wax—
New York, 250 brls. Wilson, Sons, & Co., Ld.
" 90

Phosphate—
Antwerp, 30 bgs. Wilson, Sons. & Co., Ld.
Dunkirk, 100 t.

Potash—
Dunkirk, 20 dms. Wilson, Sons, & Co., Ld.

Rosin—
Trieste, 3 brls. Wilson, Sons, & Co., Ld.

Saltpetre—
Hamburg, 50 bgs. Wilson, Sons, & Co., Ld.

Soap—
Bari, 45 cs. Wilson, Sons, & Co., Ld.
Dunkirk, 1 "
Molfetta, 80 "
" 120
St. Petersburg, 1
Trieste, 5 "

Soda—
Antwerp, 571 pks. Wilson, Sons, & Co., Ld.
Fiume, 4 cks. "
Ghent, 100 bgs. "

Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
220 cs.
Antwerp, 160 Bailey & Leetham, Ld.
" 110 Wilson, Sons, & Co., Ld.
Bremen, 1,010 Veltmann & Co.
Ghent, 246 Wilson, Sons, & Co., Ld.
New York, 250 bgs. "

Stearine—
Amsterdam, 20 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 2 cs. Hull & Netherlands S. S. Co.

Sulphite—
Christiania, 600 bls. Wilson, Sons, & Co., Ld.

Talc—
Trieste, 100 bgs. Wilson, Sons, & Co., Ld.

Tallow—
Dunkirk, 210 cks. Wilson, Sons, & Co., Ld.
New York, 50 trcs. "

Tartaric Acid—
Bari, 25 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 2 cs. Hull & Netherlands S. S. Co.

Turpentine—
Bordeaux, 4 cks. Wilson, Sons, & Co., Ld.
Riga, 53 brls.

Waste Salt—
Hamburg, 250 bgs. Wilson, Sons, & Co., Ld.

White Lead
Amsterdam, 19 cks. Hull & Netherlands S. S. Co.
Rotterdam. 40 "

Wood Pulp—
Christiania, 1,505 bls. Wilson, Sons, & Co., Ld.
Gothenburg, 228 pks.
420 bls. "
Helsingfors, 1 pk. J. Good & Sons
762 bls.
" 16 Trent Nav. Co.
" 12
Oporto, 100
Stettin, 40 pks. Wilson, Sons, & Co., Ld.

GLASGOW.

Week ending November 2nd.

Barium Chloride—
Rotterdam, 5 cks. J. Rankine & Son

Barium Sulphate—
Antwerp, 500 bgs. 34 cks.
Biphosphate of Lime—
Marseilles, 96 cs.
Bleach—
Hamburg, 34 cks.
Bleaching Powder—
Rotterdam, 43 cs. J. Rankine & Son
Castor Oil—
Antwerp, 98 cks.
Marseilles, 55
Chemicals *(otherwise undescribed)*
Hamburg, 9 cs.
Rotterdam, 6 J. Rankine & Son
Coal Products—
Alizarine
Rotterdam, 11 brls. J. Rankine & Son
Aniline
Rotterdam, 5 cks. J. Rankine & Son
39 brls. 2 cs.
Aniline Colours
Amsterdam, 3 cks. J. Rankine & Son
Colours—
Hamburg, 16 cks. 2 pks. 2 cs.
Rotterdam, 11 cks. J. Rankine & Son
36 pks.
Cottonseed Oil—
New York, 1,000 bxs.
Disinfectants—
New York, 1 bx
Dyestuffs—
Extract
Philadelphia, 50 brls.
Rotterdam, 2 cks. J. Rankine & Son
Farina—
Delfszyhl, 700 pks. J. Rankine & Son
Gelatine—
Hamburg, 4 cs.
Glue—
Hamburg, 100 bgs.
New York, 124 brls.
Lye—
Hamburg, 13 dms.
Manure—
Bombay, 2,000 bgs.
Molasses—
New York, 981 brls.
N. Orleans, 7,500 Ingram Brs. & Co.
Nickel Ore—
Tokio, 3,210 t. Nickel Co.

Ochre—
Newport News, 181 brls.
Oxide of Iron—
Montreal, 37 brls. 39 kgs.
Painters' Colours—
Antwerp, 4 cks. 3 cs.
Paraffin Wax—
Hamburg, 445 brls.
New York, 200 pks.
Philadelphia, 240 brls.
Phosphate—
Antwerp, 1,010 bgs.
Potash—
Hamburg, 50 cks.
Rotterdam, 26 J. Rankine & Son
Potassium Cyanide—
New York, 1 cs.
Red Lead—
Rotterdam, 17 cks. J. Rankine & Son
Salammoniac—
Hamburg, 1 ck.
Saltpetre—
Hamburg, 58 cks.
Soap—
N. Orleans, 690 brls. G. & J. Boyd
,, 69
New York, 950 3000 bxs.
Soap Lyes—
Marseilles, 20 dms.
Sodium Nitrate—
Rotterdam, 23 cks. J. Rankine & Son
Starch—
Antwerp, 120 cs.
New York, 1530 bxs. 125 bgs.
Stearine—
New York, 60 cs.
Sulphuric Ether—
Hamburg, 5 cs.
Tallow—
Rotterdam, 35 tcs. J. Rankine & Son
Ultramarine—
Antwerp, 5 cks.
Varnish—
New York, 28 brls.
Waste Salt—
Hamburg, 379 cks. 600 bgs.
White Lead—
Rotterdam, 11 cks. J. Rankine & Son
69 pks.

Wood Pulp—
Christiania, 280 bls. 13 cs.
Zinc Ashes—
Antwerp, 4 cks.
Zinc Oxide—
New York, 100 bxs.
Zinc White—
Rotterdam, 25 cks. J. Rankine
25 pks. & Son

TYNE.

Week ending October 28th.

Asbestos—
Hamburg, 39 bgs. Tyne S. S. Co.
Barytes—
Hamburg, 500 bgs. Tyne S. S. Co.
Rotterdam, 2 t. 17 c. ,,
Colours—
Rotterdam, 1 brl. Tyne S. S. Co.
Copper Precipitate—
Huelva, 601 t. Tharsis Sulphur & Copper Co.
Paint—
Christiania, 2 cks. P. H. Matthiessen & Co.
Pyrites—
Huelva, 2,741 t. Tharsis Sulphur & Copper Co.
Rosin—
Baltimore, 3,200 bls. J. Cooke & Co.
Soap—
Rotterdam, 4 cs. Tyne S. S. Co.
Sulphur Salts—
Hamburg, 77 t.
Wood Pulp—
Christiania, 640 bls. P. H. Matthiessen & Co.
Copenhagen, 400

GOOLE.

Week ending October 25th.

Bark—
Antwerp, 266 bgs.
Barytes—
Antwerp, 50 bgs. 35 cks.
Hamburg, 20
Chemicals *(otherwise undescribed)*
Hamburg, 7 cs.
Coal Products—
Pitch
Amsterdam, 25 cks.

Colours—
Amsterdam, 2 cks.
Antwerp, 3
Boulogne, 55
Hamburg, 10 15 cs.
Rotterdam, 185 136
Dyestuffs *(otherwise undescribed)*
Amsterdam, 2 cks. 3 cs.
Dyestuffs—
Extract
Antwerp, 25 brls.
Glue—
Boulogne, 3 pks.
Hamburg, 6 bgs.
Rotterdam, 120
Glycerine—
Hamburg, 4 dms.
Ochre—
Dunkirk, 93 cks.
Potash—
Dunkirk, 40 dms.
Hamburg, 5 kgs.
Saltpetre—
Hamburg, 33 cks.
Rotterdam, 270 bgs.
Tartaric Acid—
Rotterdam, 1 ck.
Waste Salt—
Hamburg, 232 bgs. 160 cks.
Zinc Oxide—
Antwerp, 22 brls.

GRIMSBY.

Week ending October 28th.

Caoutchouc—
Antwerp, 4 cs.
Hamburg, 19
Rotterdam, 2
Chemicals *(otherwise undescribed)*
Hamburg, 4 cs. 3 pks.
Rotterdam, 24 cks.
Colours—
Antwerp, 8 cks. 1 cs. 106 pks.
Hamburg, 57 7 72
Rotterdam, 5
Glue—
Hamburg, 2 cks. 20 bgs.
Saltpetre—
Antwerp, 45 bgs.
Starch—
Antwerp, 74 cs.
Zinc Ashes—
Antwerp, 15 cks.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 1st.

Acids—
Shanghai, 6 cs. £10
Alkali—
St. Petersburg, 2 t. 13 c. £90
Ammonia—
Sydney, 10 cs. £14
Cape Town, 18 27
Ammonium Carbonate—
Kobe, 2 t. 10 c. £79
Bremen, 1 32
Hamburg, 15 cks. 42
Ammonium Muriate—
Auckland, 10 c. £12
Christiania, 2 t. 10 46
Cologne 5 10 103
Ammonium Sulphate—
Bremen, 30 t. £830
Hamburg, 104 10 c. 1,165
Antwerp, 100 1,150
Malaga, 50 575
Arsenic—
Rockhampton, 1 t. £24
Wellington, 10 c. 12
Napier, 100 dms. 102
Boracic Acid—
Bombay, 1 t. £25
Borax—
Auckland, 60 kgs. £51
Genoa, 1 t. 65
Rockhampton, 1 17

Carbonic Acid Gas—
Auckland, 13 cs. £65
Wellington, 20 43
Caustic Soda—
E. London, 5 c. £5
Napier, 5 t. 3 37
Wellington, 2 2 25
Chemicals *(otherwise undescribed)*
Marseilles, 32 cks. £59
Antwerp, 30 66
Cape Town, 1 cs. 10
Durban, 11 6 pks. 107
Bilbao, 10 18
E. London, 2 10
Sarawak, 9 26
Boulogne, 9 40
Amsterdam, 18 3 kgs. 73
Calcutta, 10 14
Malaga, 10 cks. 16
Melbourne, 7 78
Demerara, 200 53
Auckland, 103 81
Sydney, 5 2 16 75
Hamburg, 32 514
Wellington, 14 60
Citric Acid—
Hamburg, 1 ck. 10 kgs. £90
Cape Town, 2 c. 16
Seville, 5 40
Shanghai, 1 9
Hamburg 1 t. 9 15 280
Amsterdam, 4 26
Riga. 5 46
St. Petersburg, 25 113
Pt. Elizabeth, 4 41

Barbadoes 1 5
Rotterdam, 10 cs. 15 pks. 66
Coal Products—
Alizarine
Boston, 82 cks. £922
New York, 10 104
Aniline
Melbourne, 4 cs. £75
Tientsin, 30 246
Aniline Oil
Ghent, 1 ck. £12
Rotterdam, 11 dms 400
Anthracene Oil
Gothenburg, 100 cks. 10½ brls. £448
Carbolic Acid
Mauritius, 120 kgs. £79
Philadelphia, 9 cs. 41
Sydney, 3¾ cks. 20 dms. 26
Pt. Elizabeth. 1 5
Coal Tar Dyes
Boulogne, 1 ck. £18
Creosote
Gibraltar, 40 cks. £45
St. Michaels, 5 brls. 6
Seville, 4,063 3,454
New York, 500 388
Creosote Oil
Trinidad, 15 cks. £14
Naphthaline
Calcutta, 20 kgs. £18
Cologne, 1,221 bgs. 315
Tientsin, 4 cks. 6
Shanghai, 31 40
Rotterdam, 720 109
Antwerp, 2 18
Dunkirk, 1 9

Pitch
Amsterdam, 1,180 t. £1,416
Calcutta, 10 brls. £8
Havre, 410 666
Mauritius, 15 kgs. 8
Pyridine
Hamburg, 12 dms. £150
Tar
Rangoon, 10 cks. £9
Dunedin, 27 pks. 9
Calcutta, 60 brls. 35
Trinidad, 10 19
Melbourne, 20 30 dms. 31
Mauritius, 27 11
Colombo, 49 41
Toluol
Antwerp, 4 dms. £40
Coal Products *(otherwise undes.)*—
Singapore, 25 dms. £25
Brussels, 1 9
Copper Sulphate—
Calcutta, 10 c. £13
Odessa, 9 t. 4 227
Cream of Tartar—
Cairns, 5 c. £29
Melbourne, 2 t. 10 195
Wellington, 2 11 201
Disinfectants—
Rangoon, 12 cs. £120
Hong Kong, 50 cks. 218
Sydney, 5 15
Yokohama, 100 dms. 40
St. Michaels, 5 chys. 40

E. London, 37 pks. 24
Lyttelton, 10 15
Dunedin, 10 15
Shanghai, 4 cks. 55 102
Durban, { 12 70 / 220 dms 110
Pt. Elizabeth, 40 14
Penang, 5 35
Calcutta, 100 65
Melbourne, 30 72

Glycerine—
Newport News, 20 t. 6 c. £590

Guano—
Dunkirk, 100 t. £540

Manure—
Berbice, 25 t. £230
Jersey, 194 1 c. 647
Demerara, 40 387
Malaga, 19 10 145
Hamourg, 50 10 180

Nitric Acid—
Channel Is., 32 cbys. £58
Shanghai, 20 cs. 30
Perth, W.A., 10 19
Madras, 2 t 10 c. 50 167

Oxalic Acid—
Antwerp, 1 t. 2 c £32
Melbourne, 1 29

Pearl Ash—
Melbourne, 1 t. £17

Phosphorus—
Rio de Janeiro, 1 cs. £12

Potash—
B. Ayres, 1 t. 4 c. £38
Shanghai, 3 6

Potassium Carbonate—
Melbourne, 5 c. £5

Potassium Chlorate—
Antwerp, 37 cs. £56
Madeira, 2 c. 5
Pt. Elizabeth, 1 t. 10 50
E. London, 1 5 45

Potassium Cyanide—
Bundaberg, 1 t. £112
Cartagena, 2 cs. 21
Geraldton, 10 c. 56
Auckland, 100 502
E. London, 15 t. 1,601
New York, 15 1,650
Shanghai, 9 33
Adelaide, 3 322
Sydney, 8 5 790
Melbourne, 8 1 809

Potassium Permanganate—
Calcutta, 1 t. £47

Potassium Prussiate—
Sydney, 8 c. £18
Genoa, 8 cks. 148
Shanghai, 5 19

Saltpetre—
Seville, 2 t. 2 c. £43
Colombo, 1 5 25
Rockhampton, 10 11
M Video, 1 7 28
Pelotas, 17 17
Melbourne, 5 104

Sheep Dip—
Sydney, 2 t. 12 c. £104
Pt. Elizabeth, 1 14 600 cs. 825
Gallegos, 465 581
,, 42 cks. 18 4 838
Punta Arenas, 10 9 225 531
Wellington, 32 8 900
B. Ayres, 86 cks. 6 5 750 2,128
M. Video, 200 200
Jamaica, 30 dms 15
Falkland Is., 99 81

Soda Crystals—
Cape Town, 4 t. 1 c £13

Sodium Bicarbonate—
Gibraltar, 2 t. 9 c. £15
Pt. Elizabeth, 1 7
Durban, 10 8
Normanton, 2 12
Christchurch, 10 46
Rio de Janeiro, 12 6

Sodium Hyposulphite—
Adelaide, 26 t. 16 c. £123

Sodium Sulphate—
Melbourne, 3 c. £6

Sodium Sulphite—
Melbourne, 1 t. £34
Toronto, 3 133

Sodium Tartrate—
Montreal, 1 t. 7 c. £75

Strychnine—
Adelaide, 2 cs. £20

Sulphite Lime—
Toronto, 11 c. £90

Sulphur—
Cape Town, 20 kgs. £7

Sulphuric Acid—
Durban, 15 cs. £27
Malta, 15 cbys. 11
Pt. Elizabeth 4 t. 3 c. 32

Superphosphates—
Adelaide, 750 t. £2,194
St. Michaels. 10 45

Tartaric Acid—
Normanton. 3 c. £19

LIVERPOOL.

Week ending November 1st.

Acetic Acid
Pasages, 15 c. £26

Aluminous Cake—
Melbourne, 56 t. 6 c. £129
Calcutta 40 12 2 q. 95

Ammonium Carbonate—
Toronto, 15 c. 1 q. £23
Newfairwater, 1 t. 32
Odessa, 8 10 125

Ammonium Muriate—
Barcelona, 3 t. 10 c. £69
Stettin, 6 6
Montreal, 1 3 q. 25
Trieste, 2 5 48
Rotterdam, 2 34

Ammonium Sulphate—
Gandia, 100 t. 1 t. 2 q. £1,092
Montreal, 5 55
Marseilles, 20 5 222
Cevita Vecchia, 10 2 111
Alicante, 49 10 543
Tarragona, 5 70
Teneriffe, 10 8 124
New York, 25 7 284
Bordeaux, 4 2 45
Las Palmas, 35 402
Valencia, 255 5 3 2,966

Arsenic—
Punta Arenas, 5 t. 2 c. 2 q. £103
Dunkirk, 5 160
B. Ayres, 17 12 350

Basic Slag—
New York, 200 bgs. £50

Bleaching Powder—
Barcelona, 56 cks
Chicago, 50 bxs.
Cleveland, 20
Fiume, 30
Genoa, 308
Havana, 6
Johnsonburg, 141
Leghorn, 38
Lisbon, 10
Lowell, 80
Naples, 61
New York, 191 100
Philadelphia, 53
Riga, 15
Rotterdam, 8
San Sebastian, 59
Seville, 20
Spring Grove, 112
Vercelli, 111
Vigo, 12
Windsor Mills, 48

Boracic Acid—
Hiogo, 3 t. 11 c. 3 q. £87
Kobe, 1 4 30
Hamburg, 8 5 215

Borax—
Hiogo, 2 t. 7 c. 2 q. £40
Antwerp, 73 201
Halifax, 16 3 15
Havana, 18 13
Vera Cruz, 1 15 2 26
Montreal, 12 16 3 225
Piræus, 4 cs. 11
Alexandria, 1 16

Calcium Carbide—
Pt. Elizabeth, 1 t. 7 c. £35
Sydney, 1 22

Calcium Chloride
Odessa, 20 t. £44

Castor Oil—
Sierra Leone, 3 cs

Caustic Potash—
B. Ayres, 8 c. 2 q. £5
New York, 8 t. 18 223
Baltimore, 10 15

Caustic Soda—
Adelaide, 125 dms.
Alexandria, 30
Algoa Bay, 70 cs.
Alicante, 40
Ancona, 20
Bahia, 207
Barcelona, 200
Bilbao, 36 52 brls.
Boston, 50
Calcutta, 140
Catania, 20
Chicago, 50 bxs.
Christiania, 15
Fremantle, 20
Galatz, 340
Geflie 40 52
Genoa, 136
Gutujewsky, 100
Hamburg, 15
Hamilton, 40
Hiogo, 390
Kobe, 10
Leghorn, 82
Malaga. 100 29
Melbourne, 277
Montreal, 430 5 cks.
Naples, 98
Oporto, 18
Pasages, 100
New York, 135 50 bxs.
Pernambuco 20
Piræus, 30
Pt. Natal, 10
Quebec, 25
Rio de Janeiro, 15
Rio G. do Sul., 95
Rotterdam, 65
Samarang, 28
San Francisco, 175
San Sebastian, 90
Sarnia, 40
Seville, 100
Stettin, 32
Stockholm, 6
Sydney, 28
Toronto, 35
Valencia, 10
Valparaiso, 150
Venice, 10
Vigo. 26
Wellington, 10 cks.
Wilmington, 77
Yokohama, 50

Chemicals *(otherwise undescribed)*
Tangiers, 3 brls. £9
Fremantle, 5 c. 1
Callao, 1 16
Calcutta, 116
New York, 10 t. 10 1 q. 278
Rio de Janeiro, 16 3 5
Piræus, 9 2 2
Trieste, 10 20
Hamburg, 3 39
Marseilles, 19 3 29
Barcelona, 1 29
Cape Town, 2 3 3 12
Larnaca, 1 6 6
Brisbane, 19 5
Geelong, 1 12 1 7
Philadelphia, 14 15 368
Montreal, 5 19 3 30
Genoa, 9 cks. 74
Konigsberg, 1 14

China Clay—
Baltimore, 700 cks.
Bombay, 100
Boston, 1,100
Calcutta, 419
Dunedin, 16
Madras, 272 9 cs.
Montreal, 969 300 bgs.
Naples, 10
Newport News, 900
New York, 127
Riverview, 50
Roaring Sp'ngs, 100
San Francisco, 25

Citric Acid—
Odessa, 10 c. £78

Coal Products
Aniline Colours
Hespler, 10 brls.
New York, { 31 cks. / 5 kgs.
Aniline Salt
Piræus, 20 cks.
Syra, 2
Vera Cruz, 10
Carbolacene
Teneriffe, 3 c. 3 q. £6
Carbolic Acid
St. Louis, 20 t. 4 c. 3 q. £1276
Rotterdam, 4 13 3 289
Baltimore, 12 57
Montreal, 1 11 107
Rio de Janeiro, 3 16 96
Creosote Oil
San Francisco, 2,000 brls.
Tar
Landana, 10 brls.

Copperas—
Lisbon, 4 t. 7 c. £7
Larnaca, 3 4

Copper Sulphate—
Messina, 2 t. 13 c. 1 q. £63
Palermo, 2 14 65
Quebec, 1 6 31
Stettin, 5 120
Rouen, 16 10 390
Bordeaux, 45 1 1,061
Alexandria, 1 1 23
Marseilles, 9 19 1 246
Piræus, 4 3 5
Konigsberg, 1 1 3 26

Crystallised Blood—
Bordeaux, 7 t. 1 c. £130

Disinfectants—
Bombay, 3 t. 8 c. £30
Madras, 1 15 18
Rio de Janeiro, 12 39

Dried Blood—
Teneriffe, 8 t. 9 c. £71

Glycerine—
New York. 10 t. £298
San Francisco, 56 10 c. 2,567
Montreal, 2 10 128
Hamburg, 3 3 q. 183
Lisbon, 10 24

Guano—
Barcelona, 62 t. 19 c. £506
Seville, 24 12 154

Magnesia—
Alicante, 25 cks. 25 cs.
Barcelona, 25
Constantinople, 1 3 brls.
Havre, 50

Manure—
New York, 5 t. £58
Teneriffe, 33 14 c. 363

Nitric Acid—
Sabara, 1 cs. £7

Oxalic Acid—
Philadelphia, 5 t. 4 c. £138
Syra, 12 21

Paint—
Alexandria, 240 kgs.
Antwerp, 20
Belize, 2 cs.
Cadiz, 65 dms.
Calcutta, 20
Cape Town, 5 3
Cienfuegos, 3 cks.
Coquimbo, 42
Fernanando Po, 146
Genoa, 7 1
Guantanamo, 3
Havana, 13
Hong Kong, 150
Honolulu, 2
Iquique, 20
Lagos, 50
Limon, 125
Lisbon, 175 dms.
Loando, 1 8 cks.
Maceio, 1
Manila, 400 5
M. Video, { 50 / 40 dms.
Novo Rodondo, 56
Old Calabar, 19 pks.
Para, 10 cks.
Philadelphia, 2
Rangoon, 116
San Francisco, 160
Santiago de C., 6
San Juan, 60 4 dms.
Santander, 2 brls.
Savanilla, 10
Sierra Leone, 16
Smyrna, 519
St. Vincent, 18
Tampico, 25 cs.
Trieste, 25
Valparaiso, 15
Vera Cruz, 12
Yloilo, 8 cks.
Yokohama, 200

Painters' Colours—
Alexandria, 50 cks.
B Ayres, 15 cs. 76
Genoa, 100 bgs. 5 brls.
Havana, 1 3
Leghorn, 85
Larache, 16 pks.
Manaos, 10 12
Montreal, 77 cks.
Newport News, 210
New York, 1
Philadelphia, 4 kgs. 8
Piræus, 3
Santos, 50
Valparaiso, 425

Paraffin Wax—
Galata, 50 bgs.
Panama, 10
Pernambuco, 8 cks.

Phosphorus—
Havana, 10 c. £120
Phosphorus (Amorph.)—
Hiogo, 15 cs. £158
Maranham, 2 27
Potassium Bichromate—
Piræus, 2 t. 3 c. £56
Rio de Janeiro, 1 5 35
Potassium Carbonate—
Baltimore, 1 t. 8 c. £28
Boston, 17 12 309
Potassium Chlorate—
Gutujewsky, 20 t. £601
Havana, 8 c. 17
Kalmar, 2 60
Libau, 22 10 677
Montreal, 6 180
San Francisco, 5 167
Sao Paulo, 1 5 39
Salammoniac—
B. Ayres, 15 c. £23
Galatz, 6 10
Genoa, 5 c. 2 q. 9
Leghorn, 1 t. 10 46
Piræus, 1 5 38
Salt—
Baltimore, 269 t.
Barbadoes, 25
Boma, 11 3 c.
Boston, 50
Brussels, 3 12
B. Ayres, 136 5
Cameroons, 9
Christiania, 604
Cleveland, 100
Copenhagen, 205
Dunedin, 75
Gefle, 61 11
Halifax, 150
Iquitos, 28 19
Kingston, Ja., 137
Kowilon, 116 1
Landana, 26 1
Loango, 10
Matadi, 40
Montreal, 498 2
Muculla, 18 11
Napier, 8
New York, 101
Old Calabar, 76
Opobo, 120 10
Para, 193 15
Pt. Natal, 50
San Francisco, 32 14
Santiago de Cuba, 200 cs.
Sherbro, 100
Sierra Leone, 10
Sydney, 118
Valparaiso, 3 11 c.
Vera Cruz, 20
Victoria, B. C., 20
Stockholm, 264 14
Wellington, 292 10
Salt Cake—
Antwerp, 114 t. £143
Delagoa Bay, 5 4 c. 13
Terneuzen, 150 182
Saltpetre—
Maranham, 14 c. 3 q. £16
Pernambuco, 1 t. 17 10
San Francisco, 1 5 67
Sheep Dip—
Bahia Blanca, 15 t. 14 c. 3 q. £290
B. Ayres, 53 18 3 1,140
Montreal, 3 7 73
Soap—
Addah, 150 bxs.
Algoa Bay, 582 cs.
Axim, 250
Barbadoes, 839
Bathurst, 25
Belize, 210
Baltimore, 5
Bentz, 300
Bermuda, 31
Bibundi, 50
Bilbao, 1
Boma, 100
Bombay, 500
Brussels, 1,800
Cabenda, 100
Calcutta, 1 250 bdls.
Cameroons, 210
C. C. Castle, 100 2
Cape Lopez, 255
Cape Town, 1,100
Colombo, 150
Copenhagen, 140
Curacao, 135
Delagoa Bay, 125 10
Dunedin, 17 c.
E. London 1,600
Fernando Po, 124
Gibraltar, 310
Guayaquil, 10
Havana, 1 cs.
Hong Kong, 664
Jersey, 10
Kingston, Ja. 1,300
Lagos, 201
Las Palmas, 322
Madras, 5
Matadi, 70
Manaos, 730
Mossel Bay, 50 1
New York, 41 8 brls.
Noqui, 30
Para, 150
Penang, 10
Philadelphia, 3
Piræus, 3
Pt. Natal, 3,194
Punta Gorda, 75
Rangoon, 855
Rio de Janeiro, 4 cks. 5 10
Santos 12 bxs.
Shanghai, 6,938 10
Sherbro, 115
Singapore, 620
Smyrna, 1
St. Kitt's, 100
St. Lucia, 28
St. Thomas, 73
Tientsin, 100
Teneriffe, 650
Trinidad, 19
Valparaiso, 50 1 25 dms.
Victoria, S.W.A 50 1
Zanzibar, 250 bdls.
Soda Ash—
Aalborg, 450 bgs.
Aarhuus, 280
Adelaide, 74 cks.
Ancona, 30
Baltimore, 5,400 20 tcs.
Barcelona, 37
Bilbao, 200
Boston, 240 30 36
Brussels, 500 kgs.
B. Ayres, 230
Calcutta, 38
Callao, 30
Christiania, 565 bgs.
Copenhagen, 765
Dunedin 3 t. 3 c.
Fremantle, 31
Genoa, 670 bgs.
Hamburg, 14
Helsingborg, 100
Leghorn, 220 20
Libau, 300
Malaga, 2
Maranham, 10
M. Video, 50 brls.
Montreal, 1,799 25 tcs.
N. Orleans, 39
New York, 680 89
Odense 290
Pernambuco, 50
Perth, W.A., 76
Philadelphia, 1,480
Plomari, 250
Pt. Colborne, 150
Pt. Natal, 3
Rio de Janeiro, 15
Rotterdam, 728
Samarang, 40
San Francisco, 605
San Sebastian, 23
Santos, 0
Singapore, 17
Skein, 50
Seville, 150
Soerabaia, 10
Smyrna, 550
Stettin, 200 kgs.
Syra, 8
Valencia, 50 bgs.
Venice, 100 146
Vera Cruz, 25
Yokohama, 30
Soda Crystals—
Alexandria, 180 brls.
B. Ayres, 100 kgs.
Cape Town, 25
Fremantle, 34
Malta, 60 50 brls.
Montreal, 1,900 pks.
New York, 200 140 cks.
Pt. Natal, 77
Punta Arenas, 40
St. John's, N'fd., 20
Toronto, 300 pks.
Sodium Arseniate—
Bombay, 3 cks.
Sodium Bicarbonate—
Adelaide, 410 kgs.
Alexandria, 8 cks.
Amsterdam, 50
Barbadoes, 25
Barcelona, 270 dms.
Bari, 50 10 cks.
Bilbao, 101 brls.
Bombay, 5c dms.
Calcutta, 8 cks.
Cape Town, 60
Cienfuegos, 4
Colombo, 20
E. London, 10 bgs.
Fremantle, 180 kgs.
Galatz, 20
Genoa, 51 170
Halifax, 100
Havana, 20
Kingston, Jam., 6
Malta, 20 dms.
Milan, 36 sks.
Montreal, { 450 bgs. / 325 kgs.
Naples, 60
N. Orleans, 70
Odessa, 120
Perth, W.A., 200
Pt. Natal, 20
Rangoon, { 20 bgs. / 70 kgs.
Quebec, 27
Rotterdam, 60
Samos, 20
San Sebastian, 30
Santos, 56
Singapore, 15 cks.
Soerabaia, 6
Stettin, 40 131 pks.
Tanga, 14 dms.
Toronto, 375 20 cks.
Trieste, 50
Valencia, 20 3
Yokohama, 700
Sodium Bichromate—
Montreal, 56 cks.
Piræus, 19
Sodium Carbonate—
Pt. Natal, 2 cs.
Sodium Chlorate—
Gutujewsky, 100 kgs.
Hamburg, 4 brls.
Magog, 60
Valleyfield, 300
Sodium Prussiate—
New York, 13 cks.
Valleyfield, 26
Sodium Silicate—
La Guayra, 10 brls.
Sodium Sulphate—
Gijon, 50 cks.
Sodium Tartrate—
Tampico, 2 brls.
Starch—
Iquitos, 4 cs.
Karachi, 1
Montreal, 10 brls.
Valparaiso, 2 cs.
Sulphur—
Bahia, 1 t. 4 c. 2 q. £9
Boston, 210 6 89
Drammen, 50 238
Havana, 19 2 7
Montreal, 175 1 741
Quebec, 3 5 15
Punta Arenas, 20 59
Sulphuric Acid—
Colombo, 1 t. 17 c. £21
Iquitos, 7 2 q. 7
Maranham, 1 2 12
Rio de Janeiro, 2 16
Superphosphates—
Adelaide, 1,075 t. £3,762
Barcelona, 200 600
Fremantle, 200 577
Las Palmas, 15 34
Nantes, 139 t. 14 c. 311
Sydney, 50 145
Tarragona, 100 310
Valencia, 275 1 1 q. 516
Tartar Substitute—
Montreal, 1 t. £16
Varnish—
Bilbao, 2 cs. 33 pks.
Cadiz, 16
Cape Town, 3 dms.
Constantinople, 4
Genoa, 15 pks.
Manila, 2
Milan, 4 cks.
Piræus, 2
Savanilla, 2
Sierra Leone, 2
Smyrna, 1 18 dms.
Valparaiso, 20
Vera Cruz, 1
White Lead—
Savanilla, 30 kgs.
Smyrna, 20
Victoria, B. C., 11 cks.
Zinc Chloride—
Libau, 5 t. 8 c.
New York, 17 7

MANCHESTE

Week ending November 1st

Alumina Sulphate—
London, Ont., 141 cks.
Ammonium Carbonate—
Montreal 35 pks.
Ammonium Muriate—
Brisbane, 3 cks.
Bleaching Powder—
Rio de Janeiro, 12 cs.
Bones—
Beauvais, 154 bgs.
Chemicals (*otherwise undescrib*
Antwerp, 20 kgs.
Montreal, 100 brls.
Quebec, 25
Rotterdam, 5 cks.
Toronto, 1 bx.
Citronaic Acid—
Adelaide, 2 cks.
Coal Products (*otherwise undes.*
Germany, 42 cks.
Hamburg, 6
Coal Products—
Carbolic Acid
Brisbane, 30 dm
Germany, 41 cks.
Naphtha
Paris, 26 brls.
Naphthol Salt
Hamburg, 14 cks.
Pitch
Antwerp, 179 t. 8 c.
Colours—
Rotterdam, 1 ck.
Dyestuffs—
Extract
Antwerp, 4 cks.
Melbourne, 2
Toronto, 20
Farina—
Rotterdam, 50 sks.
Glue—
Melbourne, 2 cks.
Rotterdam, 7
Glycerine—
Germany, 20 dms.
Mineral White—
Rio de Janeiro, 16 bgs.
Soap—
Sydney, 10 cs.
Soda Ash—
Montreal, 3 946 bgs.
Sulphur—
Montreal, 25 brls.
Sulphuric Acid—
Rio de Janeiro, 16 cs.
Zinc Chloride—
Rotterdam, 4 cks.

GLASGOW.

Week ending November 2nd.

Ammonium Sulphate—
Bilbao, 30 t. 14 c. 1 q.
Genoa, 76 7 3
Italy, 5 19 3
Penang, 35 3
Stockholm, 5 1 1
Valencia, 405 18 2
Bleaching Powder—
Calcutta, 72 t.
Bones—
Antwerp, 10 t.
Boracic Acid—
Melbourne, £90
Borax—
Melbourne, £30
Rotterdam, 147
Chemicals (*otherwise unde*
Calcutta, £33
Lisbon, 8 16
Montreal, 28
Coal Products—
Carbolic Acid
Rotterdam, £130
Creosote Oil
France, £2 200
Pitch
Antwerp, £173
Canada, 166
Christiania, 19

Tar
Calcutta, £137
Christiania, 35
Madras, 79
Riga, 638
Tar Oil
France, £198
Hamburg, 44
Crude Tar Acids—
U.S.A., £29
Dextrine—
Canada, £65
Dyestuffs *(otherwise undes.)*—
Melbourne, £52 1cs.
Dyestuffs—
Extracts
Canada. £463
Stockholm, 15
Victoria, 25 4s.
Fustic Extract
Canada, £44
Sumach Extract
Barcelona, £99 15s.
Turmeric
Canada, £34
Gelatine—
Canada, £246 10s.
Glue—
Barcelona, £20
Iodine—
Rotterdam, £1,335
Lead Nitrate—
Canada, £109
Linseed Oil—
Natal, 18c. 1 q.
Punta Arenas, 1 t. 2
Sydney. 3 5
Valparaiso, 4 1
Litharge—
Johannesburg, £66
Stockholm, 32
Logwood—
Canada, £90
Manganese Ore—
Rotterdam, 10 t. 2 q.
Manganese (Recovered)—
Rotterdam, £10
U.S.A., 100
Paint—
Beira, £29 17s.
Brisbane, 47
Calcutta, 223
Colombo, 117
Durban, 71
E. London, 41 14
Lisbon, 46
Punta Arenas, 62 12
Singapore, 30
Painters' Colours—
Chinde, E.A., £149
Paints and Colours—
Calcutta, £522
Paraffin Wax—
Barcelona, £228
Bilbao, 154
Cape Town, 351
Christiania, 2 t. 18c. 2 q.
France, £188
Genoa, 90
Gijon, 93
Italy, 901
Rotterdam. 20
Spain, 642
Stockholm, 170
Potassium Bichromate—
Antwerp. 2 t. 1 q.
Amsterdam, £278
Canada, 279
New York, 95
Montreal, 131
" 8 16c. 3 q.
Sydney, 1 3 1
Yokohama, 10
Potassium Cyanide—
Melbourne, £458
U.S.A., 20 t.
Potassium Muriate—
Colombo, 10 t.
Potassium Prussiate—
New York. £187 10s.
Pyrolignite of Iron—
Barcelona, 5 t. 18c. 2 q.
Red Lead—
Lisbon, 15 t. 2 q.
Soap—
Canada, 1 t. 17c. 2 q.
Chinde, E.A., 12 17
E. London, £255
Foochow, 5 8
Singapore, 5 19 1 q.
Soda—
Canada, 6 t. 3c.
Sodium Arseniate—
Lisbon, 2 t. 13c.
Sodium Bichromate—
Antwerp. 3 t. 3c. 3 q.
Montreal, £34
New York, 8 17
Quebec, 190
" 8 18 3 q.
St. Die, qty.
Starch—
Rotterdam, £15
Sulphur—
Trinidad, £28
Sulphuric Acid—
B. C. Africa, £22
Penang, 21
Tallow—
Riga, £250
Yarnish—
Calcutta, £29 11s.
Sydney, 27
White Lead—
Rockhampton, £29
Sydney, 50
Zinc Ashes—
Rotterdam, 9 t. 18c. 3 q.

HULL.

Week ending October 28th.

Alkali—
Abo, 57 cks.
Ammonium Sulphate—
Bordeaux, 195 bgs.
Basic Slag—
Stettin, 820 bgs.
Wyburg, 508
Borax—
Abo, 1 ck.
Chemicals *(otherwise undescribed)*
Abo, 5 cks.
Amsterdam, 45
Antwerp. 1 cs.
Christiania, 9 1,935 slbs.
Copenhagen, 2 23 pks
Danzig, 20
Dunkirk, 4
Gothenburg 5 562 slbs.
Hamburg, 4 43
Libau, 3
Riga. 2
Rotterdam, 13 30
Stockholm, 1
St. Petersburg. 3 67 pks.
Coal Products—
Pitch
Antwerp, 207 t.
Dunkirk, 240
Tar
Antwerp, 4 cks.
Copenhagen, 10
Dunkirk. 25
Rotterdam. 11
Cottonseed Oil—
Amsterdam, 5 t. 2c.
Antwerp, 6 4
Bordeaux. 5
Copenhagen, 5
Dunkirk, 9 19
Ghent, 5 1
Gothenburg. 2 14
Hamburg. 21
Rotterdam, 20 8
Rouen, 10
Stettin. 9 17
Stockholm, 1 1
Dyestuffs *(otherwise undescribed)*
Boston. 6 cks.
Gothenburg. 4
Hamburg, 2
Rouen, 11
Stettin, 60 bgs.
Glue—
Helsingfors, 1 ble.
New York. 28 cks.
Linseed Oil—
Amsterdam, 7 t. 2c.
Antwerp, 7 4
Christiania. 4 13
Christiansand, 2 12
Copenhagen, 1 8
Hamburg. 3 10
Manure—
Bordeaux, 51 bgs.
Hamburg, 134
Ochre—
Hamburg, 9 cks.
Paint—
Helsingfors, 1 ck.
Painters' Colours—
Abo, 1 ck.
Amsterdam, 4
Antwerp, 12 34 cs.
Boston, 95
Bordeaux, 2 1
Bremen, 40 dms
Christiania, 20 48
Copenhagen, 16 5 1 pk.
Danzig, 8 2
Dunkirk, 3
Ghent, 12
Gothenburg, 5
Hamburg, 11 1
Helsingfors, 4 3 13 dms.
New York, 56 11
Rotterdam, 14 3
Rouen, 6
Stettin, 6 pks.
Stockholm, 2
Soap—
Gothenburg. 1 cs.
Hamburg, 3 cks. 1
Stockholm, 1
Starch—
Bergen, 1 cs.
Tallow—
Amsterdam, 2 cks.
St. Petersburg, 61
Turpentine—
Antwerp, 20 cks.
Rotterdam, 5
Yarnish—
Antwerp, 1 cs.
Christiania, 1 ck.
Hamburg, 2
St. Petersburg, 3

TYNE.

Week ending October 28th.

Alkali—
Amsterdam, 32 t. 10c. 2 q.
Bergen, 2 17 3
Rotterdam, 1 11 3
Alum Waste—
Horsens, 12 t. 6c. 2 q.
Ammonium Carbonate—
Hamburg, 1 t. 19c 1 q.
Alumina Sulphate—
Barceolna. 50 t.
Antimony—
Amsterdam, 5 t.
New York, 60
Rotterdam, 6
Arsenic—
Barcelona, 19 cks.
Barium Binoxide—
Rotterdam, 19 t. 13c. 1 q.
Rouen, 16 2 2
Barium Carbonate—
Hamburg, 150 t. 9c. 1 q.
Barium Chloride—
Montreal. 5 t. 12c. 2 q.
Bleaching Powder—
Amsterdam, 5 t. 13c. 1 q.
Antwerp, 22 2 2
Bergen, 10 3
Copenhagen, 1 18 2
Gothenburg 20 3 1
Hamburg, 15 2
New York, 59 19 1
Odense, 10 2 1
Rotterdam, 5 11 2
Caustic Soda—
Abo, 16 t. 1c. 3 q.
Antwerp. 5 2 2
Barcelona, 67 15 1
Gothenburg, 20 1
Helsingfors, 51
Montreal, 34 19 2
New York, 66 19 1
Chemicals *(otherwise unaescribed)*
Montreal, 151 t. 19c. 3 q.
Colours—
Montreal, 1 t. 13c. 1 q
Rotterdam. 8
Lamp Black—
Ghent, 1 t. 6c.
Linseed Oil—
Montreal, 2c. 3c. 3 q.
Litharge—
Gothenburg, 1 t. 2c. 1 q.
Hamburg, 1 1 2
Helsingfors, 5 5
Montreal, 27
Riga, 37 cks.
Magnesia—
Antwerp. 1 t. 7c. 3 q.
Barcelona, 145 cs.
Hamburg, 1 16c.
Manganese—
Antwerp, 6 cks.
Rouen, 1 t. 4c. 3 q.
Orange Mineral—
Montreal, 20 t. 4c. 1 q.
Paint—
Antwerp, 6c. 1 q.
Hamburg, { 2 cks. / 1 t. 10
Rotterdam, 1 10
Potash—
Antwerp, 4c.
Red Lead—
Amsterdam, 6 cks.
Barcelona, 8
Copenhagen, 3 t. 14c.
Finland, 1 17 2 q.
Gothenburg, 3 10 3
Hamburg, 33 5
Montreal, 30 5 2
Rotterdam, 5 18 2
Riga, 15 cks.
Red Oxide—
Montreal, 17c.
Silicon—
New York, 100 t.
Soda—
Amsterdam, 20 t. 1c. 1 q.
Gothenburg, 5 3
Helsingfors, 6 9 1
Soda Ash—
Gothenburg, 50 t. 5c. 3 q.
Hamburg, 1 19 3
Wiborg, 55 4 3
Sodium Hyposulphite—
New York, 23 t. 10c. 3 q.
Sodium Sulphate—
Abo, 20 t. 3c. 2 q.
Spirits of Tar—
Hamburg, 1 t. 1c.
Sulphur—
Antwerp, 10 t.
Gothenburg. 50
Riga, 150 bgs
Yarnish—
Montreal, 8c. 2 q.
White Lead—
Copenhagen, 2 t. 1c. 2 q.
Hamburg, 18 2
Montreal, 69 2 1
New York, 5
Riga, 18 cks.

GOOLE.

Week ending October 25th.

Alkali—
Hamburg, 55 cks.
Rotterdam, 1
Chemicals *(otherwise undescribed)*
Antwerp, 2 dms.
Ghent, 1 cs.
Hamburg, 17 crbys. 2 8
Coal Products *(otherwise undes.)*—
Amsterdam, 25 cks.
Antwerp, 131
Ghent, 1 2 dms.
Hamburg, 6 1 cs.
Rotterdam, 8 4
Coal Products—
Pitch
Antwerp, 1,075 t.
Dyestuffs *(otherwise undescribed)*
Antwerp, 2 cks.
Hamburg, 6 2 cs.
Logwood—
Hamburg, 100 t.
Painters' Colours—
Dunkirk, 2 cs.
Ghent, 1 ck.
Hamburg, 3 24

GRIMSBY.

Week ending October 28th.

Coal Products *(otherwise undes.)*—
Dieppe, 179 cks. 8 pks.
Hamburg, 4 btls.
Manure—
Malmo, 10 cks.
Painters' Colours—
Hamburg, 11 cks. 1 cs.

PRICES CURRENT.

WEDNESDAY, Nov. 8, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	6/3 & 8/9		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	4	0
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	0	11½
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	23	10	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-		
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	10	10	0
,, ,, (grey) Hull .. .. ,,	10	8	9
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	5	10	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	10
,, 50/90 ,, ... ,,	0	0	11
Carbolic Acid (crude 60°) .. .. ,,	0	2	2
,, (crystallised 40°) .. .. .. per lb.	0	0	7½
,, (liquid 95/97%) .. .. .. per gallon	0	1	1
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	12	0
Solvent Naphths, 90% at 160° .. .. per gallon	0	1	3½
Copper .. .. per ton	72	7	6
,, Sulphate .. .. ,,	25	2	6
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	32	10	0
,, (distilled S.G. 1260°) .. .. ,,	50	0	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	18	10	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	23	5	0
,, ,, (brown ,,) .. .. ,,	19	0	0
,, Carbonate (white lead) pure .. .. .. ,,	23	5	0
,, Nitrate .. .. ,,	22	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	5	15	0
,, ,, (grey) (ex ship) .. .. ,,	8	15	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	10	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	2	12	6
Manganese, Sulphate .. .. ,,	14	15	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	19	10	0
Linseed .. .. ,,	25	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) .. .. .. per ton	17	10	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % .. per ton	24	0	0
,, ,, ,, 75/80 % .. ,,	20	0	0
,, Potash Hydrate Liquid 50 % .. .. ,,	13	5	0
,, Nitrate (refined) .. .. ,,	20	10	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	7¾
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	9	0	0
Silver (metal) .. .. per oz.	0	2	2¾
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. works)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. works)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. works)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. works)	4	7	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. works)	2	15	0
,, Acetate (ex-ship) .. .. ,,	13	15	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax) .. .. nett per ton	16	0	0
,, Bichromate .. .. ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	10	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	0	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	8	0	0
,, ,, (pure liquor 90° Tw.) .. ,, ,, (10 ton lots)	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	12	6
,, Hyposulphite .. .. ,,	5	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	9
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	10	0
,, Prussiate .. .. per lb.	0	0	0
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	6	0
,, ,, (Glauber's Salts) .. .. ,,	1	12	0
,, Sulphide (crystals) .. .. ,,	6	5	0
,, Sulphite .. .. ,,	5	2	6
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	28	0	0
Tin Crystals .. .. per lb.	0	0	10
,, English Ingots .. .. per ton	145	0	0
Zinc (Spelter) .. .. ,,	21	12	6
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	15	0

THE

CHEMICAL TRADE JOURNAL

AND

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

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Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

TO EACH SAINT HIS CANDLE.

IN pursuance of a promise given to our readers a few weeks ago, we revert to what appears to us a remarkable episode in modern industrial effort. For a long time now, by newspaper correspondence, by advertisement and by pamphlet, the Actiengesellschaft für Trebertrocknung in Cassel, has been assailed by a number of wood-distilling firms on the Continent, who have endeavoured to prove to the "general public," that the methods of business of the said company are most unsatisfactory, and, therefore, that the investing public should have but little confidence in them.

Following on the newspaper correspondence and the advertisements in the German press a pamphlet has been issued broadcast, signed by seven wood-distilling firms, and entitled:—"The Bergmann Patents in the hands of the Actiengesellschaft für Trebertrocknung in Cassel," which contains very grave charges against the company—so grave, in fact, that had such a pamphlet been issued in this country, against a firm manufacturing here, the law courts would most undoubtedly have been sorely troubled with a *cause célèbre*, and the usual harvest would have fallen to the lot of the legal profession.

As was pointed out in the balance-sheet, published in our issue of October 21st last, the Trebertrocknung Company has been in existence for over ten years, and has paid dividends of 7, 10, 12, 10, 10, 10, 38, 50, 40, and 40 per cent. during that period, so that we must surely acknowledge it as having somewhat more than an ephemeral existence, and as demanding very careful criticism. Established at the outset for the drying and rendering marketable of various waste products, such as brewers' grains, distillers' refuse and other subsidiary articles, it has extended its business in other quarters, and has entered into competition with, amongst others, the seven firms who have subscribed their names to the pamphlet already quoted; and it does seem a most natural inference, that the inconveniences of competition may have influenced these gentlemen, causing them to see with different eyes the facts that have been laid before the public in the Trebertrocknung balance-sheets. We do not say this is so, but the pamphlet in question lays the greatest stress upon the validity and usefulness of the Bergmann patents, which we understand by no means form the bulk of the Trebertrocknung business.

In addition to being manufacturers of chemical products, the Trebertrocknung company are makers and suppliers of drying machinery for dealing with waste products and turning them to profitable account. This should be a very remunerative business, as there are many substances often absolutely destroyed on account of there being no machinery at hand to deal with them when and where required. Naturally, this has led to the formation of subsidiary companies, of which, it is said, the Trebertrocknung has promoted a great number. So long as these companies are formed with all

the facts before them, we do not see that any harm is done; it should be for intending shareholders to investigate for themselves, and if they are satisfied with the probabilities of success, why should attempted progress be stayed? It is well known that in these days the exact financial result is so mixed up with questions of management, policy, finance, change of fashion, demand for new articles, and even the exigencies of our present civilisation, that what might be a loss one moment may become a handsome profit in the next. The contrary might quite as easily be stated, but from a trade or industry which has been carried on in a great measure from the most barbarous times without much alteration, might we not expect some improvement by importing into it the skill of our engineers or the science of our chemists?

We are not posing as upholders of the validity of the Bergmann patents, or of the utility of them; neither of these questions comes within our province. The first is a matter of law, and the second a subject upon which a just conclusion can only be formed with a full knowledge of local details, and these we have not before us. We have too often seen patented processes, relegated to obscurity through the influence of interested parties, suddenly rise again to take their place in the industrial operations of the world, to be led hastily into rejection or approval; and on the other hand the worthlessness of many much-vaunted patents has become a household word, so that, for an answer to the opponents of the Trebertrocknung company's doings, we must fall back upon the report of the Chairman of the Trebertrocknung company, read before the shareholders in extraordinary general meeting on November 3rd.

Briefly, the opponents' case is: That no profit can be made by the application of the Bergmann patents; that the high profits of the company have been obtained by methods of doubtful probity; and that the public has been misled by promises made on illusory reports.

The report of the Chairman of the Trebertrocknung company calls attention to the fact that the leading idea, to which the existence of the company is due, has been the desire to obtain the greatest economy in working conditions, by perfecting the machinery, and introducing new and improved methods for the utilisation of subsidiary or so called waste products, and this is seemingly the reason why the profits of the company have been so satisfactory. The Bergmann process of wood distillation was taken up by the company on account of its opening up a market for the drying machinery which they manufactured, and which they hoped in many instances would enable small and waste wood to be successfully carbonised. In this connection it may be stated that the products of wood carbonisation have been of late years far more freely used in various industries than heretofore. The aniline dye industry consumes methyl alcohol; wood vinegar is employed in the pickle and sauce industries, which have now assumed gigantic proportions; while acetone, which is even obtained by the destruction of one of the primary products of wood distillation, is at the present time largely used in the production of smokeless powder.

Judging by the criticisms of the company's operations, the main product of the distillation of wood—namely, the charcoal—has come in for its share of attack. Whether the criticisms are justified or not, the markets will undoubtedly decide; but the Chairman's report fully sets out the method which such a concern as the Trebertrocknung must follow. He says:—"The commercial managers of a great distillation concern, who know their business, must neither swear by the distillation of logs, nor by the distillation of wood waste, but *they must* act according to the dictates of the conditions and demand. If they are in a position to effect the sale over a number of years of blast-furnace charcoal at remunerative prices, then the best logs will be carbonised as slowly and as carefully as possible, and they will be satisfied with a smaller yield of distillation products. When hardwood waste can be obtained in large quantities, the chief task will obviously be the manufacture of the distillation products, and the charcoal will be further treated in the shape of dust, or put on the market in the form of briquettes." This explanation, coupled with what follows in the Chairman's report, goes to show that if such a policy is carried out, the Trebertrocknung company may safely be left to manage their business in their own way.

The history and development of the Bergmann process concerns us only in this particular—that if it brings into the region of "practical politics" substances that have hitherto been waste or of but little value, the gainer is not only he who uses the new substances made from them, but also the owner of the waste products. In these manipulations prices may be reduced all round, but the workman will always be a gainer by his wages; and as the trend of the present day is that of cheapness, reasonableness of price generally stimulates consumption, and produces the necessary outlet required by new firms. Whether universal cheapness is a panacea for all the evils said to be suffered by the manufacturing community it is hard to say; but we have seen many falls of this character without ruination following. Benzol has fallen from at least 12s. 6d. to 7½d. per gallon. Sulphate of ammonia has varied from £24. a ton to less than £8.; whilst chlorate of potash, which was once 2s. 6d. a pound may now be had for less than 4d.

Part of the Chairman's address is taken up in dealing with the length of time necessary to get each new factory into working order. Everyone who has had any practical experience of new installations will agree with the statements therein expressed. There *is* a "personal equation" attaching to each new works, depending upon local circumstances, and the organization is always more difficult when a large establishment is attempted at one *coup*, instead of commencing in a small way and growing by the addition of units. If satisfactorily accomplished, the large establishment may yield a larger and a quicker profit than the smaller but growing one, but mistakes made are much more costly to remedy, and more time is consumed in the process. The report concludes by saying:—"Our opponents desire to warn the public against our false representations. False representations cannot exist, as the value of the Bergmann process has been substantiated and confirmed. But who is it that is to be warned? Our customers? They unanimously acknowledge our professional capacity and the correctness of our commercial attitude. Is it, then, our business friends and shareholders? We place every detail of our management and our books at their disposal. Our subsidiary companies, perhaps? Ask them all, and you will have the same answer from each. They will thankfully acknowledge the rigorous manner in which we have assumed and fulfilled our material and moral responsibilities towards them. The Stock Exchange? It is always capable of being alarmed and then pacified again. There remains, therefore, only the great outside public, which, according to the opinion of our opponents, is to be warned against us. The great public will, in the first place, simply and naïvely say: 'If it is true that the Bergmann process is of no value, why do the people make such a fuss about it? they ought surely to be glad if their competitors have, as their mainstay, a worthless process.' The great public will also, if it pays as much attention to this statement as it has done to the sensational attacks which provoked it, ask this question: 'How is it that patents granted in 1891 and 1893 bring about such a desperate battle in 1899?' and facts will then show why our competitors have sought just the present time to develop their furious attacks."

To which we also say—Why?

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Extracting Shellac, Dyes, and Gums from Hatters' Felts with Alcohol. L. S. Jones. 21,696. October 30.

Apparatus for Recovering Oils from Condensation Water by Filtration. S. Bender. 21,713. October 31.

An Apparatus for Detecting Explosive Gas or Dust in the Atmosphere. C. E. G. Simons. 21,714. October 31.

Valve for Hot Gases. J. R. Wheeler and G. F. Wheeler. 21,745. October 31.

Manufacture of Artificial Sandstone. P. Jensen. 21,794. October 31.

Process for Preserving Wood. G. F. Lehoida. 21,814. October 31.

Improvements in Filter Systems. W. F. Stewart and A. H. Kohlmeyer. 21,819. October 31.

Refuse Destructors. H. J. Marten. 22,834. November 1.

Explosives. S. P. Thompson. 21,860. November 1.

Obtaining Zinc Solutions Free from Iron and Manganese Compounds. F. A. Gasch. 21,871. November 1.

Apparatus for Supplying Inhalable Gases in Localities Charged with Deleterious Gases. C. D. Abel. 21,872. November 1.

Carbonising and Obtaining Products from Sewage Sludge. W. R. Hutton. 21,921. November 2.

Calcining Apparatus for the Revivification or Recovery of Spent Limes, Soda and Bleaching Powder, Wastes, Small Limestone, and the like. G. R. Hislop. 21,926. November 2.

Electrodes for Electrolysers. R. Eycken, C. Leroy, and R. Moritz. 22,028. November 3.

Compressed Fuel. R. Fallnicht. 21,081. November 4.

Treatment of Materials for Fireproof and Preservative Purposes. A. J. Boult. 22,085. November 4.

Manufacture of Oxidation Products of Nitro-toluene. J. Y. Johnson. 22,105. November 4.

Manufacture of Cream of Tartar. T. Gladysz. 22,117. November 4.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Manufacture of Indigo. J. Y. Johnson, 47, Lincoln's Inn Fields, London (communicated by the Badische Aniline and Soda Fabrik, Ludwigshafen-on-Rhine). Eng. Pat. 25,960. December 8, 1898.

In the manufacture of indigo, indigo leuco compounds are prepared and melted together with hydroxyl compounds (such as acetine, glycol, or mannite) and anthranilic acid. When free hydroxy derivatives are used, an alkali is added; but if metallic salts (such as glycerate of potassium, sodium, or calcium) are used, the alkali is not necessary. Five methods of preparation are described, of which the first will serve as an example. One part of anthranilic acid, 2 of glycerine, and 4 of caustic potash are melted together, and heated to 250° or 300° C. This temperature is maintained until the melt assumes a yellow-red or brown-red colour, previous to which the mass becomes blown up with bubbles of gas, as given off. The melt is then cooled, dissolved in water, and the indigo separated in any of the well-known ways. By the four other ways, indigo is produced from the potassium salt of anthranilic acid and potassium glycerate, without the aid of alkali; by the aid of the two above-named potassium compounds, and a mixture of lime and caustic potash; from anthranilic acid, alkali, and ethylene glycol; and from potash, a salt of anthranilic acid, and mannite.

A New or Improved Electrolytic Process and Apparatus for the Production of Chemically Pure Cupric Sulphate of Copper. E. Frenot. 88, Rue des Boulets, Paris. Eng. Pat. 15,438. July 27, 1899.

An electrolyte is decomposed with a current of 100 to 150 amperes. The anode is a bar of crude copper capable of being rotated in a horizontal plane. The cathode consists of laths of copper arranged in a symmetrical position relatively to the anode, so that they can be brought closer together or separated at will. Sulphate of copper forms at the cathode, and pure copper is deposited on the laths. There are two figures. The composition of the electrolyte is not stated, but is easy to guess we should think.

Improvements in or connected with the Separation or Production of Hydrocyanic Acid from Gases containing such Acid or Cyanogen. J. Bueb, Dessau, Germany. Eng. Pat. 26,259. December 12, 1898.

The gases containing hydrocyanic acid are first cooled, passed through dilute vitriol (20 per cent. solution) to remove ammonia, and then passed through alcohol of 94 to 98 per cent., the gases and alcohol flowing in opposite directions. The alcoholic olution of hydrocyanic acid is then distilled fractionally, the cyanogen and alcoholic vapours being led into an alcoholic solution of caustic potash, when an insoluble cyanogen alkaline salt separates. As the lyes which are left contain 2 or 4 per cent. of this salt in solution they are saturated with carbon dioxide, when the alkali is separated as pure carbonate, and the hydrocyanic acid absorbed by the alcohol and recovered in due course.

Improvements in or connected with Electrical Conductors and Anodes for Electrolytic and similar Purposes. The General Electrolytic Parent Co., Ltd., L. Hargreaves, and W. Stubbs, all of Derby-road, Farnworth Widnes, Lancs. Eng. Pat. 9,631. May 8, 1899.

The object is to protect the anodes and conductors at the points of junction from any of the actions which cause disintegration, or destroy electrical contact. One method is to interpose a layer of oil between the electrolyte and the conductor, or to employ oil casings. There are 10 figures showing how this may be effected, and also how the anodes and conductors may be bolted together.

Improvements in or Relating to the Precipitation of Gold from Chloride or Bromide Solutions containing it. F. W. Martino, 107, Montgomery-road, Sharrow, Sheffie'd. Eng. Pat. 5,631. March 7, 1899.

The novelty lies in the use of metallic carbides, capable of producing a hydro-carbon gas with water, as the precipitating agents—indirectly that is to say, the hydro-carbon gas being the real precipitant. Any free chlorine or bromine is removed by suitable means previous to the carbide treatment. In the permanganate process the small amount of permanganate present in the auric chloride solution is readily decomposed, and the precipitation of the gold proceeds rapidly.

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for September, 1899, as compared with September, 1898:—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	22,127	20,662	5,947	7,098
Sweden and Norway	7,258	10,361	1,464	2,618
Germany	16,814	7,213	3,813	2,793
Holland	8,398	13,283	1,741	2,794
France	7,782	2,229	2,705	960
Spain and Canaries	32,878	33,968	10,506	11,199
Italy	28,526	31,023	8,284	8,969
United States	50,047	63,624	11,564	13,760
Australasia	14,436	28,624	4,596	9,193
British North America	16,617	21,060	4,151	3,797
Other countries	104,850	119,546	31,216	34,600
Total	309,733	351,593	85,987	97,781

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	52,149	69,232	13,558	15,407
Other countries	29,943	42,049	8,860	11,737
Total	82,092	111,281	22,418	27,144

A. G. FUR TREBERTROCKNUNG IN CASSEL.—We are requested to state that the London offices of the Actiengesellschaft fur Trebertrocknung in Cassel are at 19, Eastcheap, London, E.C., under the management of Mr. Henry Ryding.

RONTGEN RAYS AND THE WAR.—Messrs. L. Gaumont and Cie., 25, Cecil-court, Charing Cross-road, London, advise us that His Grace The Duke of Newcastle has undertaken to furnish a complete outfit of apparatus for Röntgen Ray Work to the Princess of Wales' Hospital Ship, and a private donor has made a similar gift for the s.s. *Spartan*. Both installations will be under the direction of Mr. John Lecouteur, the well-known expert.

Reports of Companies.

A. G. FÜR TREBERTROCKNUNG IN CASSEL.

An extraordinary general meeting of the Actien-Gesellschaft für Trebertrocknung in Cassel (joint-stock company for the utilisation of brewers' grains and distillers' refuse) was held in Cassel (Germany), on the 3rd inst.

The meeting, which had been convened by the board of directors for the purpose of considering the attacks made in public on the management of the company by a number of competitors, was attended by 168 shareholders, representing 6,899 shares out of a total of 12,000 Among the shareholders represented were the Leipziger Bank, the Caisse Commercialle (of Brussels), Messrs. Joh Berenberg, Gossler and Co (of Hamburg), Messrs. von der Heydt and Co (of Berlin), Messrs. Veit L. Homburger and Co. (of Karlsruhe), the Bayerische Bank of Munich, the Dortmunder Bankverein, and other banking institutions. Special representatives had also been delegated by nearly all the subsidiary companies of the Actien-Gesellschaft für Trebertrocknung in Cassel.

The Chairman of the Board (Mr. Hermann Sumpf, of Cassel) opened the meeting, remarking that the Treber Company celebrated its tenth birthday on that very day. Continuing, Mr. Sumpf said that whilst the directors and the manager were represented at that meeting by their own shares, they intended to refrain from voting, and no vote would be given in respect of their holdings.

The manager (Mr. Adolf Schmidt) submitted an exhaustive report to the meeting, giving a general account of the company's relations to the industry of wood distillation and of its various departments. Then Mr. Schmidt read an elaborate answer to the pamphlet circulated by the firms competing with the company. Both the report and the answer to the pamphlet were printed and circulated among the shareholders attending the meeting. Mr. Schmidt entered into the details of the accusations made. The assertion that the balance sheets had been manipulated was met by him with detailed evidence to the contrary. The assertion that the subsidiary companies had to pay excessive royalties was met with the remark that those royalties had been placed nearly entirely to reserve, and that these reserves enabled the Cassel company formerly, as now, to assist the subsidiary companies in developing their business and increasing their profits. In reply to the accusation that the enormous dividends paid by the Cassel company during the past few years had not been paid out of bona-fide profits, but out of dubious promotion profits, figures were submitted to the meeting proving that all profits derived from patents, and even more than such sums, had been placed to reserve, all dividends having been paid out of profits from the regular business operations of the Cassel company. The company repudiated the insinuation that it was only enabled to sustain its system by continuous flotations of subsidiary companies. As regards the accusations that they had been guilty of deliberately deceiving the public, the directors had resisted the temptation to prosecute their competitors for libel, and had thereby saved the company from the danger of making all its valuable and costly trade secrets public property. The company was under no necessity of proving its honesty in the law courts, and would prefer to devote all its powers to profitable work in its own sphere.

M de Posnanski, as the representative of the Russian subsidiary company, explained to the meeting that the sums paid by his company to the Cassel company had been given in consideration of all patents, plant, apparatus, processes, and expert advice obtained from the Cassel company, and neither for the Bergmann patents only, or for the patents alone, which referred to the distillation of wood. Previously to entering into the business, he and his friends had inspected several works of the Cassel company, entirely at their choice, and had obtained exhaustive reports on the same by Professor Konowalof, the eminent expert on the chemistry of wood. The deal had been made on receipt of this report and upon personal examination by those interested, and he was convinced that the eventual results would surpass the original estimates of profits. The Russian company intended to work mainly under the Bergmann patents. The Russian company believed it had struck an excellent bargain, in spite of the large amount paid for the use of the patents, and was highly confident of obtaining excellent results He concluded by certifying that the Cassel company had fulfilled every promise made with the utmost punctuality and a rigorous sense of duty.

M. Liebaut (of the Société Anonyme de l'Industrie Chimique du Bois of Nantes), a shareholder and manager of the Nantes company, had no hesitation in publicly declaring the attacks made upon the Nantes company as absolutely false. M. Liebaut desired to support the report made by the delegates of the Cassel Chamber of Commerce, and for this purpose submitted to the meeting samples of his products, his letter-files, orders, and books, inviting the shareholders present to inspect them and convince themselves that the Nantes works not only produced excellent charcoal under the Bergmann patents, but also sold it at a good profit, and were unable to cope with the orders on hand. M. Liebaut remarked that his own firm had derived much profit from the connection with the Cassel firm, and he had much pleasure in now thanking the company again for the processes acquired by his own company, and for the excellent equipment of the Nantes works.

Mr. J E. Zilliken (of the Italian company) said the attacks made upon the balance-sheet of the Italian company were utterly frivolous. The balance-sheet of his company was in perfect conformity with the laws of Italy ; it was never suggested that the balance-sheet in question was to be typical for an ordinary financial year, as it referred to the year in which the works were erected. The contraction of a number of items in the German edition of the Italian balance-sheet had been effected in Italy, and the Cassel Company had published the balance-sheet in precisely the form it was received. The Cassel Company was then in no case responsible for the Italian balance-sheet. Continuing, Mr. Zilliken gave an account of the general prospects of his company, and declared that the excellent machinery supplied by the Cassel Company in conjunction with the favourable market for their output, was a guarantee for a prosperous future.

Herr Robert Schenck von Ledecz, a director of the Hungarian subsidiary company, then addressed the meeting in his own name and on behalf of Baron von Popper, he himself and the latter gentleman having been the earliest and most important private purchasers of plant from the Cassel Company. He described the insinuation that the Cassel Company had been compelled to repurchase their works as perfectly untrue. From the very first these works had been erected with a view to consolidation in the hands of a joint-stock company. Herr von Schenck closed his remarks with the statement that the Cassel Company had never promised more than it had been able to do, and that it had faithfully fulfilled every promise made.

Herr von Kubinyi, member of the Hungarian Parliament and a director of the Hungarian company, endorsed every statement made by Herr von Schenck, and expressed his mingled regret and indignation at the unprincipled tactics of the Cassel Company's competitors. As the member for the parliamentary district in which the Hungarian works were located, he expressed his unqualified satisfaction at the work done there by the Cassel Company.

Herr Brauns, the manager of the Galician Company in Wygoda, stated that it was perfectly true that his concern had experienced difficulties, but they mainly referred to the absence of a local demand for the charcoal obtained with the Bergmann process. His works were now introducing the new process for the carbonisation of logwood, and in view of the excellent results obtained with this process, as well as the assistance of the Cassel Company in disposing of the Bergmann charcoal, he was confident of soon mastering all difficulties.

Dr. Joseph Kranz, the president of the Bosnian Company reminded the meeting of the fact that some newspaper attacks suggested that the company existed entirely on subventions granted by the Minister for Bosnia, whilst others declared the sound state of order prevailing in the Bosnian Company to be exclusively due to the rigorous attitude of that same Minister. Both of these insinuations were false. The Minister was certainly a valuable friend of industries wherever they found a suitable and sound basis, but was it to be imagined that he would extend his protection to a technical failure? However, the equipment of the Bosnian works was beyond reproach, and this was the special merit of the Cassel Company, which, after erecting magnificent works at Teslic, had directed its unremitting exertions towards keeping the works supplied with the most modern and efficient methods. It was most remarkable that the Cassel Company should be blamed for not clinging obstinately to one particular process, in face of the fact that it was found possible to get contracts for the sale of log charcoal at excellent prices for years ahead. No great industry had ever worked under precisely the same conditions as it was started with, after attaining to prosperity, and it was the duty of the directors not to cling to any one patent, merely to uphold a principle, but to make money for their shareholders. The attacks on the part of the competitors of the Cassel Company were utterly devoid of foundation, and emanated from incorrect information. However, the Bosnian Company was not afraid of any competition, and would know how to defend itself even against the unprincipled methods of its enemies.

Mr. Kranz, barrister-at-law, of Wiesbaden, then addressed the meeting, and pointed out that the terms of the German law made it impossible for the Cassel Company to prosecute their antagonists, a limited company being incapable of being libelled, and therefore without a *locus standi* in a libel action.

Mr. Wiese, a shareholder, told the meeting that he had personally challenged Mr. ——, the most prominent of the competitors fighting the Cassel Company, to substantiate his public attacks. He did not hesitate to communicate the result of his conversation with Mr. —— to the meeting. Mr. —— had defended the action of the seven competing firms with the argument that they were compelled to wage a war of extermination against the Cassel Company, being in danger of

succumbing to its superior power. Mr. —— had been particularly angry at the success of the Cassel firm in selling 1,000,000 bottles of acetic acid, and thereby endangering his own market in Berlin.

Professor Frentzen, of the Royal Technical University in Aachen, the architect of the railway station at Cologne, mentioned that he had personally inspected the Nantes works, and was therefore able to certify that they had been built most substantially in every detail. He was also able to repudiate the attacks made upon the Hamburg concern from personal observation. Speaking as a shareholder, he had not taken up his holdings on account of the Bergmann patent, but for this reason, that he had been able to convince himself that the Cassel Company continued to follow every important development in the chemical industry, and to spare neither cost nor effort in taking up valuable discoveries relating to its special branches.

Mr. Rambke, of Hanover, declared his opinion on the communications made to the meeting to be one of absolute confidence in the management of the company. It would be highly unsuitable to pay the attacks upon the company the compliment of having them examined by a committee of investigation. He begged to propose an unqualified vote of confidence in the directors and the special resolution to give the widest publicity to that day's proceedings.

Dr. Deumer (barrister-at-law) seconded the motion. The law courts were not the suitable forum for thrashing out the highly-technical questions raised, and it was perfectly unnecessary to bring an action for libel against the competing firms, for the facts laid before the meeting had finally disposed of the attacks made. Dr. Deumer appealed to the meeting to give a striking demonstration of their confidence in the manager and directors of the Cassel Company.

The motion was adopted unanimously, amidst applause. It was suggested that a division should be taken; but on putting the question no one was found to oppose the motion.

The Manager expressed his great satisfaction and gratitude at the splendid demonstration of confidence in the directors and in his own management.

Mr. Stern (a shareholder) asked the manager for information on the general prospects for the current year, and also desired to know why the last issue of shares had not yet been introduced on the stock exchanges of Germany.

The Manager, referring to the communications made on occasion of the ordinary and the present general meeting, hoped that the results of the year's working would again be satisfactory. With regard to the official quotation of the new issue, he reminded them that the process of application had been interrupted by the fierce public attacks, and that it had been deemed advisable to wait for the result of the present meeting before proceeding with the matter.

BRITISH OIL AND CAKE MILLS, LTD.

GLOWING PROSPECTS

The first ordinary (statutory) general meeting of the British Oil and Cake Mills, Ltd., was held last week, at Winchester House, Old Broad-street, E C., under the presidency of Mr. Isaac Pearson.

The Chairman, in the course of a long speech, said, I should like to say something about the vendors. They are gentlemen who have been managing these businesses for a great number of years, and managing them well and prosperously. All these businesses have been prosperous. We regard them as the best businesses, and the men who have been at the head of them were the vendors of the properties, and are now the managers of what were previously their own mills. That is a point, we think, of great strength, because the interest of each manager is centred, of course, in the success of the business, not on account of his particular business, but on account of the business as a whole, seeing that he has such a large stake in the concern. And another point in connection with the vendors to which I should just like to allude is that in many of these businesses we find the managers, as they are now—they were the proprietors—are gentlemen who have attained a very high scientific knowledge of this particular business; I am speaking of the manufacturing part of it. Some in the combination who have been successful in the past would have been more so if they had possessed that same scientific knowledge, which, in the old state of things, was withheld from them, because we were all very jealous indeed of each other, I can assure you. We used to meet as enemies on the market, and were in competition in every way. Now we are bound together in a brotherhood; we are all the best of friends, all trying to help each other by working together. Each mill tried to help every other mill, and that particular knowledge which I allude to as being of the highest value is being diffused through the whole of the combination, so that those who were in ignorance of a great measure of the success of other businesses are put in the position of getting the benefit of it—in other words, they can pick their brothers' brains. I want to emphasise this point, because I look upon it as one of the most important points that we have—that is, the deep interest the vendors take in the management of the various mills and in the management of the whole. I think everyone here will agree with me that that is of the highest importance. We all know what business is, it may be very good indeed if fairly well managed for several years, and then when it is handed over to a man to manage it who knows very little about it and is, perhaps, careless and indifferent about it, the results are very unsatisfactory. That however, is not our case at all. Then as to the trade of the company. You are all aware that there has been a very great impetus in the trade of the United Kingdom of late, and I am glad to say that this company has in a great measure participated in the general improvement that has taken place. There were several reasons which, apart from that, gave us a good start. As you will all remember, we have had a very dry summer. Now, a dry summer means that farmers require artificial food, and that meant that our mills were kept busy. Further than that, there were other circumstances which increased the value of the articles in which we deal. A very large increase has taken place, and we have received the benefit of that. Altogether, I am able to say this most confidently, that the mills have, since July 1, and are, at the present moment, successfully and profitably worked, and we are all busy. Now, I am not going to say one word about the future, because I only want to lay the facts before you, and am not going to make any forecast of what may happen twelve months hence. I only tell you as a practical man and as one who knows the business from the bottom to the top, what is being done at the present moment. Now, there were several and various things alluded to in the prospectus, and I should like to say that all our anticipations are being realised. We did not put forward visionary things which we thought would attract the public, but only stated what we expected to do, and what we expected and attempted to do we are doing successfully.

MESSRS. J. C. AND J FIELD, LTD.

An extraordinary general meeting was held recently at Winchester-house for the purpose of considering resolutions for winding up the company voluntarily, authorising the registration of a new company to be named "J. C. and J. Field (Limited)," and approving the sale of the company's undertaking for shares and cash, as embodied in the draft contract submitted to the meeting. Mr. Percy Bicknell, who presided, remarked that the proposals had occupied much attention on the part of the board, and they had obtained the opinion of eminent counsel, who had advised that the scheme was strongly in the interest of all classes of shareholders. It was unnecessary for him to comment on the scheme, as the ordinary shareholders would clearly see that it was to their advantage to pass it. Notwithstanding the opinion of leading counsel as to the correctness of the proposals, and with a view to further security, the board, through the medium of a friendly shareholder, intended to obtain the sanction of the Court. He moved the adoption of the three resolutions embodying the acceptance of the scheme, which, having been duly seconded, were carried, the first resolution with one dissentient and the others *nem. con.*—A general meeting of the preference shareholders was held subsequently, when similar resolutions to those passed at the previous meeting were submitted. Mr Bicknell presided. After recapitulating the statements made in his earlier speech, the Chairman went on to say that the board had been surprised that the proposals had not met with the support of all the shareholders. He thought that the principal opponents of the proposals held mistaken views as to their effect. As compensation for the reduction of 1 per cent. in the dividend, which was equivalent to 15 years' purchase, he would point out that, in addition to the extinction of the £50,000. debentures which stood before the preference capital, the shares, by being reduced to the denomination of £1., would become more marketable. The directors had received a great many proxies, but if a substantial minority opposed the scheme the board had no intention of forcing it. One or two proprietors having expressed their approval of the proposals, Mr. F. Hurst remarked that, while he fully appreciated how much the shareholders were indebted to the directors, he altogether disagreed from them as to the fairness of the proposal before the meeting. He maintained that from every standpoint the scheme was inequitable towards the 7 per cent. preference shareholders; and if it were carried through, it would be nothing less than a spoliation of the income and rights of those shareholders. It was a proposal by which neither the ordinary shareholder nor the 6 per cent shareholder was disturbed, and there was no reason why any class should be asked to give up anything while the company was so prosperous. If the scheme were carried he thought the company would have the distinction of being the first on record which had deprived any class of its preference shareholders of their income in a time of prosperity, and when there was no poverty to plead. A long discussion ensued, and eventually Mr. Hurst moved the adjournment of the meeting for a fortnight, in order to give further opportunity for considering the proposals. After a private consultation among the board the chairman announced that, although the directors had sufficient proxies to carry the matter through, they had no intention of opposing the adjournment, to which they agreed, subject to the understanding that no proposals other than those before the present meeting should be brought forward. The meeting was accordingly adjourned for a fortnight.

Legal Intelligence.

HIGH COURT OF JUSTICE.
QUEEN'S BENCH DIVISION.

(*Before Mr. Justice Bigham.*)

SCOTT AND SON *v.* SALMOND.

The plaintiffs, Messrs. Geo. Scott and Son, of 67, Lord Street, Liverpool, sued Messrs. David Salmond, Son, and Nephew, of Valley Road, Bradford, to recover £838. 18s. in respect of instalments due under an agreement with the defendants of February 22nd, 1898, to deliver to them certain plant for the purpose of converting crude glycerine into chemically pure glycerine. They also claimed a further £500. under the agreement. The total cost of the plant supplied was £2,450., which was to be paid by certain instalments, the first of which was paid; but the defendants alleged that the plant supplied was incapable of doing the work for which it was intended, and of dealing with the quantity of glycerine per week for which it was bought. They accordingly counter-claimed for the instalment paid, and claimed £340. damages, alleging that it took more than a month to get the plant into full working order, that it affected no saving of labour, and that it could not produce the quantity per week stipulated for. Plaintiffs' reply to this was that the plant was supplied according to contract, and that it was not incapable of doing the work required. Mr. Pickford, Q.C., and Mr. M. Hill, were counsel for plaintiffs; and Mr. Taylor, Q.C., and Mr. E. Hill for defendants.

Mr. Taylor, proceeding with his argument, said the report on the working of the plant showed that five tons of crude glycerine only yielded 60 per cent. of chemically pure glycerine, and his point was that the plant, therefore, could not be worked at a profit, when they came to reckon the cost of the crude oil, coals and labour; in fact it showed a loss of £5. 4s. 3d. on the five tons. The fact was that if they got a yield of 75 per cent. of pure glycerine they had a profit, but if they only got 60 per cent they worked at a loss.

His Lordship: Both parties seem to have contemplated a plant which would work at a profit, and there is no provision in the agreement for a loss.

Mr. Taylor said his argument was, that when his clients found that the plant would only produce the pure glycerine at a loss, they were entitled to request plaintiffs to take it away. It was not part of their business to speculate in plant which might or might not come up to the expectation of its inventors. They were not bound to keep it and spend money on it to make it work all right.

Mr. Pickford said the report on the plant was that a very small expenditure on the plant would make it do the work, and he urged that it had, therefore, been supplied according to contract. A great deal depended upon the price of the crude in the market, and it varied from time to time. He further said that the figures which had been quoted as to the cost of working the plant were ridiculous.

Mr. George E. Davis, who had made a technical report on trial experiments with the plant, was called, and said that if certain additions which he had suggested were carried out, they would increase the capacity of the still to from four-and-a-half to five-and-a-half tons. Crude glycerine, he said, in answer to his Lordship, had varied from £24. to £32. during the past two years; £52. might be got for pure glycerine of good quality, but he had heard of less being taken.

His Lordship found for the plaintiffs for the amount claimed, and also the last instalment due on the plant of £816. and costs. There had, he said, on a previous action, been judgment for plaintiffs for £500. That made, in all, over £2,000., and he suggested that £1,500. should be paid into Court, pending any appeal that might be agreed on. He hoped, however, that the matter would not come up again, as the litigation must have cost an enormous sum to both parties. As to the alleged breaches of warranty, if Mr. Taylor would formulate his claim he would hear him, but he suggested that it should be settled by the representatives of the parties themselves. If they could not do that, he was prepared to deal with the whole thing, and put an end to the litigation.

Judgment accordingly for plaintiffs, with costs.

Obituary.—We regret to learn of the death, on the 11th inst., at Springfield, Prestwich, of Mr. William Heatley Southern, late of Messrs. Thomas and William Southern, Wheathill Chemical Works, Salford, in his 49th year.

Sales of Fertilizer Works in U.S.A.—The properties of the Commercial Guano Company at Savannah and Columbus, Ga, were purchased recently by the Virginia-Carolina Chemical Company of Richmond, Va. The plants at Savannah and Columbus were estimated to be worth $500,000, and the price paid is stated at or about that figure. It is also stated that the Virginia-Carolina Company is to acquire the plant of the Edisto Fertilizer Company of Charleston, S.C.

Agricultural Notes.

BARLEY GROWING COMPETITION.

The second annual competition, open to users of the Gold Cup Barley Fertiliser (Griffin Brand), prepared and manufactured at Mr. Wm. Colchester's Chemical Manure Works and Bone Crushing Mills, Ipswich, took place last week. The conditions were similar to those which were laid down at the first successful competition, at a corresponding period last year, but so far as the number of entries were concerned, there was a considerable advance upon the first exhibition. As to the value of the contests of this kind, there can perhaps be hardly two opinions, serving as they do to inspire a healthy competition amongst agriculturists of a given district in the matter of cultivation of cereals.

Last year Suffolk, with a specially favourable season, came pretty prominently to the front, with some of the choicest barley to be found in the country. This year, however, East Anglia has been rather out of the running, the choicest examples on view at the recent Brewers' Exhibition coming from other parts of England. The samples sent in competition for the gold cup offered by Mr. Wm. Colchester, and grown by the Gold Medal Cup Fertiliser, prepared at the Ipswich mills, of that firm, included some of the best which were produced during the late somewhat untoward season. The entries were very satisfactory, coming as they did from a wide district, and representing corn grown on a variety of soils The judges were Mr. W. J. Seals, of Ipswich, member of the Adjudicative Committee, Brewers' Exhibition, and Mr. Thos. Franklin, late founder of the Malting and Seed Barley Competition, Brewers' Exhibition; and Mr. Chas. M. Colchester, the proprietor of the firm, engaged the assistance of Mr. W. Breeze, of Occold Hall; Mr. H. J. Riches, Amor Hall, Washbrook; and Mr. Jno. Smith, Bovill's Hall, Little Clacton, to assist these gentlemen. The judges selected the very mellow and well-thrashed sample sent by Mr. Wm. Nisbet, Park Gate Farm, Stratford St. Andrew, as being the best, and awarded that gentleman the gold cup. The barley was grown on light mixed soil, the seed being sown the second week in February, and the crop cut in the second week of August. Four cwt. per acre of the Gold Cup Barley Fertilizer was used in February, the preceding crop being mangold. The first diploma was awarded to Mr. Daniel S. Garrod, Hill Farm, Felsham, the barley being grown on a mixed soil, clay and chalk, and the quantity of Griffin Brand manure 5 cwt. per acre on March 24th. The barley was put in on March 25th, and the crop was cut on August 18th, the previous crop being swedes. The second diploma went to Mr. Walter Fallows, Venn's Farm, Witnesham; 4 cwt. of Mr. Colchester's fertiliser was used to the acre on February 28th, on which day the barley was sown, and the crop harvested August 10th. The soil was sandy, the preceding crop being swedes. Mr. Nesbit was the victor last year with one of the best samples produced in any part of the country that season. He also won the Liverpool Cup, and the Suffolk Champion Cup at the Brewers' Exhibition, and the cup offered by the proprietors of the *Mark Lane Express*. At the conclusion of the judging, Mr. Charles M. Colchester invited the judges and other gentlemen to luncheon.

Mr. W. J. Seals said the season had been decidedly against the production of high-class barley. He looked forward to the time when the gold cup barley competition would be one of the most important in the district. Barley was a crop quickly grown, and it was one that required little help beyond what farm-yard manure could give. One of the most interesting sights of the day was the Chemists' Laboratory, where Mr. Howison explained the process of manufacture, and pointed out that the Government looked after the interests of agriculturists inasmuch as three of Her Majesty's inspectors made periodical visits to the works. Mr. Seals pointed out that the barley should be carefully examined before planting, in order to test its purity and vitality, thus avoiding the disappointment often attending the sowing of barley of low vitality. He was a great believer in kiln-dried barley for seed, as tending to preserve the full vitality of the seed, and ensuring a regular and even plant. The largest and heaviest barley tended to produce the most vigorous plant; the too common practice of selling the best corn and saving the screenings for the seed could not be justified in any way. It was advantageous to obtain the seed barley from soils of different texture. A change of seed from one locality to another, notably from north to south, was undoubtedly advantageous. Referring to the right time to sow, Mr. Seals said statistics showed that the majority of prize-winning samples were February and early March sown. As to English malt, the best brewers now regarded the quality of extract in preference to quantity, sound extract of the right quality ensuring superfine beer; and with reference to the quantity of seed to be sown, 7 to 8 pecks per acre was sufficient, and after a straw crop or roots consumed off the land a stiff straw barley should be selected. With regard to harvesting, much of the barley was undoubtedly in some seasons cut before it was ripe, the result being a heavy, unripe, livery

looking barley, whereas had the crop been allowed another week or ten days' growth the farmer would probably have had instead a nice, ripe, lemon-coloured sample. Mr. Seals referred to various other points, and on the subject of dressing barley pointed out that the men should have proper canvas boots to avoid damaging the grain. In no case should iron or tin shovels be used or running barrows without india-rubber tyres. Half corns could not be extracted by machinery, but split, ribbed, and crushed corns must go with the bulk.

CHARLOCK SPRAYING.

The new method of destroying charlock in corn crops by spraying with sulphate of copper solution has been put to the test this year in many parts of this country. In order to ascertain what degree of success has been obtained, Messrs. Strawson, of 71a, Queen Victoria-street, London, recently issued a circular of inquiry, which has brought in nearly 200 replies. A digest of these will shortly be published, but meanwhile we are able to give a general summary. Replies have come, it may be mentioned, from every county in England and from many counties in Scotland, Ireland, and Wales. As to the dates of spraying, 5 per cent. were in April, 47 per cent. in May, and 48 per cent. in June. The date necessarily varies with the locality and the season, but the most successful spraying is on young charlock plants 2in. to 6in. high. Much of the charlock sprayed in June was too old. The weather at the time of spraying was generally fine; rain on the first or even the second day after spraying lessened the effect, whilst windy weather led to uneaven spraying. Of the crops sprayed, 55 per cent. were oats, 39 per cent. barley, and 6 per cent. wheat. As to the age of the charlock at the time of spraying, 50 per cent. is described as "young," 40 per cent as "advanced," and 10 per cent. as "old." As spraying material copper sulphate has been the most generally used, and gives better results than iron sulphate. The best results of all were obtained with a 2 per cent. solution of sulphate of copper sprayed at the rate of 50 gallons per acre. Pure sulphate of copper is necessary; some failure and much disappointment arose from the use of impure sulphate of copper. As to the success of the operation, 68 per cent. of the replies describe the spraying as successful, 26 per cent. as partially successful, and 6 per cent. as unsuccessful. In the last-named group distinct causes of failure were discoverable. No injury is done, in any case, to the growing crop.

The conclusions are (1) that charlock can be destroyed in growing corn crops, without injury to the latter, by spraying with a 2 per cent. solution of pure sulphate of copper at the rate of 50 gallons per acre; (2) that the best time to spray is when the charlock is young and from 2 in. to 6 in. high; (3) that the chief sources of failure are spraying too late, employing insufficient solution, and using impure sulphate of copper. The question as to the effect of the spraying upon young grass and clover plants in corn crops, and upon beans and tares, was not put, but many correspondents have volunteered the information that there is no injurious action. Cultivators who propose to spray against the charlock pest next season are recommended to have everything in readiness beforehand, otherwise the time lost in preparation at the critical moment may be sufficient to enable the weed to reach a stage of growth at which it is capable of successfully resisting the toxicological effect of the copper salt.

SOCIETY OF CHEMICAL INDUSTRY—*London Section.*—At the last meeting, Mr. W. F. Reid, F.I.C., F.C.S., described a new substitute for india-rubber and gutta-percha, which has been named "Velril" material. After quoting statistics as to the amount of rubber produced and consumed, Mr. Reid said that even if there be no cause for anxiety as to there being an adequate supply of the natural product for the next few years, yet it would be a desirability to be able to produce the article artificially, in order to prevent the demand exceeding the supply. "Velril" was made by the addition of nitroricinolein or nitrolinolein (which were prepared from castor and linseed oils respectively, the former, nitroricinolein, being the better body to use), to nitrocellulose of very low nitration. This resulted in the production of a homogeneous mass—"Velril." There were a very large number of samples displayed to exemplify the uses of this new material, including machine belting, waterproof sheeting, hose tubing, stoppers for bottles, and an immense variety of other articles. Being insoluble in such bodies as benzene, carbon, disulphide, &c., in the laboratory it can be used for making the connections in extraction apparatus. Corks can be hermetically sealed with it, and films may easily be made of it. In fact, with the aid of suitable heat and pressure the homogeneous mass produced initially may be moulded into almost any desired shape. "Velril," so far as experience goes, is more durable than rubber, and contrary to expectation is not explosive. The nitrated linseed or castor oil seemed to act as a solvent of the nitrocellulose. The opinion was freely expressed that the introduction of "Velril" would create a new industry in the country.

Correspondence.

**** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

TUNGSTEN BLUE.

(To the Editor of the Chemical Trade Journal).

SIR,—We are obliged for Chemicus's reply, and would beg to ask Chemicus, first of all, who makes the Tungsten Blue? and what is the colour produced and what quantity is consumed? Waiting the favour of his reply,

Yours, etc.,
COLOURMAN.

IMPORTS AND EXPORTS FOR OCTOBER.

THE Board of Trade returns for the past month are satisfactory. The *imports* of chemicals and dyes show an increase, but the *exports* of alkali and salt are lower. Chemical manures show an increase.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE.

ARTICLES.	Quantities. 1898.	1899.
Margarine ..... Cwt.	80,498	85,220
Copper Ore and Regulus..... Tons	13,687	26,025
Pyrites..... ,,	44,361	50,709
Tin ..... Cwt.	33,716	67,152
Alkali ..... ,,	23,424	21,452
Brimstone ..... ,,	33,324	19,498
Dyes, coal tar ..... £.	54,418	69,757
Saltpetre ..... Cwt.	19,631	21,890
Petroleum ..... Gall.	16,597,237	15,550,666
Turpentine ..... Cwt.	34,207	33,066
Guano..... Tons.	5,448	1,833
Nitrate of Soda ..... ,,	6,588	5,609
Paraffin Wax..... Cwt.	79,693	77,317
Rosin .... ,,	68,014	74,161
Tallow and Stearine..... ,,	233,754	143,603
Tar..... Barrels	17,145	25,383
Oil Seed Cake ..... Tons	23,353	25,760
Wood Pulp..... ,,	34,114	29,434
Borax ..... Cwt.	46	118

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

ARTICLES.	Quantities. 1898.	1899.
Alkali .... Cwt.	375,239	319,838
Cement ..... Tons.	31,432	32,239
Coal and Coke ..... ,,	3,299,177	3,601,090
Copper, all kinds ..... Cwt.	98,794	130,913
Iron and Steel ..... Tons.	261,340	370,539
Chemical Manures ..... ,,	32,154	37,255
Oils, seed ..... ,,	3,287	2,616
Salt..... ,,	59,360	43,246

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are steady at last quotations. The feature of the week is the advance in carbolic, 2s. 5d. now being asked for crude, 9d. for crystals, and 1s. 2d. for liquid. Naphthas are firm, with crude 1s. 3½d. to 1s 4d. Pitch is quoted a little easier at 33s. 6d, f.o.b. East Coast.

Sulphate of ammonia seems to have taken the turn, and is now quoted at improved prices at all ports, but so far there is little indication whether business has resulted. Beckton price is £10. 10s.; London outside makes £10. 12s. 6d.; Hull £10. 12s. 6d.; Leith £10. 12s.6d. to £10. 15s., all prompt.

MISCELLANEOUS CHEMICAL MARKET.

The demand for all kinds of chemicals continues excellent. In the alkali trade there is great activity, and makers are well filled with orders. Bleaching powder meets with good request, and price has again advanced, and stands at £6., rails, makers' works. Caustic soda moves briskly at prices reported last week. Soda crystals and saltcake unchanged. Pure alkali, 58%, strong at £4. 7s. 6d. on rails. Chlorates of potash and soda quiet at 3⅛d. and 3¾d. respectively. Nitrate of soda has a steady sale at former rates Chloride of calcium somewhat scarce, and price appears on the rise. Sulphur of all grades without change. Sulphate of copper appears weaker, and price has declined; £24. 10s. to £24. 15s. are to-day's quotations. Lead salts find fair inquiry, and prices have an advancing tendency, but there is no quotable change meantime. Yellow prussiate of potash flat, and prices are falling. Copperas still sells freely, and good prices are being realised. Acetates of lime strong, and very little obtainable, except from stock. Brown is quoted at £6. 5s., and grey, £9. White powdered arsenic is firmly held, and prices from £19. 5s. to £19. 10s., at Garston, are being paid. Tin crystals in short supply; 10¼d. to 10½d. is generally quoted. Sulphocyanides continue more satisfactory. Crude carbolic has advanced, and 60's are quoted at 2s. 5d. per gallon. Oxalic acid inactive, and price is in buyers' favour. The demand for fine chemicals used in the textile trades is still good.

REPORT ON MANURE MATERIAL.

The market still wears an off-season character, and the volume of business doing has been very moderate.

Quotations for mineral phosphates are unchanged, but the continued abstention of buyers is making some of the raisers rather uneasy, and it is possible that for good lines something under current quotations would be accepted.

Freights from India have declined considerably, and this change has brought out eager sellers of bone meal in all positions. There are ready sellers at £4 16s 3d. per ton, and £4. 15s per ton would probably be accepted if bid

Nitrate of soda is firm at 7s. 10½d. per cwt. for good, up to 8s. per cwt. for refined quality.

Home-prepared dried blood is in limited request, and 9s. 9d. per unit of ammonia per ton, delivered f o b Liverpool, would probably be accepted.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron quiet: Scotch warrants closed at 72s.; Middlesbrough, 70s. 7½d. cash; and hematite, 79s. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s closed at £73 to £73 5s. cash; and £72. 5s. to £72. 10s three months. Tin lower: Straits closed at £119. 5s to £119 15s. cash; and £119. 10s. to £120. three months; Australian, £120; English ingots, £123. to £125. Lead steady: Spanish, £17 to £17. 2s. 6d.; English, £17. 5s.; Silesian spelter, ordinary, £20 15s. to £21. Nickel, 1s. 2½d. Antimony, £39. 15s. Quicksilver: first hands and second hands, £9 7s. 6d. *Copper Shares* steady: Cape, 5 3/16 to 5 5/16; Copiapo, 3 11/16 to 3 13/16; Libiola, 1½ to 1¾; Mason & Barry, 3⅞ to 4⅛; Rio Tinto, 46 3/16 to 46 5/16; Tharsis, 8¼ to 8½.

GLASGOW, Wednesday.—Market steady, and a good business. Scotch done at 72s 1½d., 72s., and 72s. 2d. cash; also at 72s. 7d., 72s. 6d., and 72s. 6½d. month; buyers, 72s. 2d. cash; sellers, ½d. dearer. Cleveland, buyers, 70s. 9d. cash; sellers, 70s. 10½d. Cumberland hematite done at 79s 1½d, 79s. 0½d., and 79s. 2d. cash; also at 79s. 7½d., 79s 6d., and 79s. 7½d. month; buyers, 79s. 2d. cash; sellers, 79s. 3d.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is dull, and sales have been made at £23. 15s., ex quay, for Lagos. Olive is very firm, and difficult to obtain; for shipment, quotations are £35. to £35. 10s., Seville, and £36. 10s. per tun for Malaga. Linseed is firm at 23s. 6d. to 24s. for Liverpool makes in export casks. Cottonseed is well held for 19s. to 19s. 6d., Liverpool refined. Castor oil is not in very great demand at 3½d. to 3 3/16d. for good seconds Calcutta, and 2 13/16d. to 2⅞d. for first pressure French. Tallow is quiet, and only a small business doing. Resin is in fairly good request for all grades, with a moderate spot business doing. Spirits of turpentine steady at 39s. 6d. cwt. Petroleum dull, with American, 7¼d. to 8⅜d., and Russian refined, 6⅜d. to 6½d. per gallon.

CAKES.—The tone of the market for imported descriptions has ruled quiet, and with little business passing in American Western on the spot, sellers are a shade easier, and now offer at £7. 7s. 6d. to £7. 10s.; there are sellers of Bombay at £7. 15s. to £8. per ton. Russian remain quite nominal in value for the want of stock here, and River Plate are also rather nominal at £7. 17s. 6d. to £8. per ton, in the temporary absence of supplies. Liverpool makes are moving off to a moderate extent for consumption at last quotations Good to choice brands of American decorticated cottonseed have a firm market, but without much doing, and the value is the turn in sellers' favour at £5. 17s. 6d. to £6. 5s., according to quality; and Liverpool makes are selling to a moderately fair extent at former currencies, viz., £6. 12s 6d. to £6. 15s. per ton, according to brand. Undecorticated Liverpool makes are the turn easier to buy, and there is a fair inquiry going on from consumers at £4. 16s 3d. to £5 10s., according to brand; and Egyptian have a steady market, with sellers at £4. 17s. 6d. per ton for arrival, in the absence of any spot supplies.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s; Devonshire, 40s. to 45s; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s. 9d; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

Tuesday.

OILS.—Cottonseed oil has been a fairly steady and improving market during the week, whilst linseed oil has declined almost 15s. per ton. The imports during the week have been:—Linseed, 2,905 qrs. against 15,860 qrs. same week a year ago; rapeseed, 685 qrs. against 7,716 qrs; cottonseed, 2,153 tons against 1,988 tons; oilcake, 958 tons against 295 tons; olive oil, 201 tuns against *nil*; tar, 9 barrels against *nil*. Linseed oil closes steady, 21s. 4½d. spot, naked; 21s. 1½d. November/December; 20s. 6d. paid January/April; boiled and refined, £1. to £1. 10s. per ton extra. Whilst exports have been 134 tons for the week:—2 tons Belgium, 2 Denmark, 30 Germany, 37 Holland, 45 India, 18 Norway. Refined cotton oil dearer; refined sold 16s. 7½d. to 16s. 9d. spot, naked; 16s. 1½d. bidding to April; crude, 15s. spot and to April; casks, £1., and barrels, £1. 10s. per ton extra. The exports for the week have reached 198 tons, being:—5 tons Belgium, 5 Denmark, 110 France, 29 Germany, 32 Holland, 2 Norway, 15 Sweden. Oleines remain firm and unchanged from £21. per ton for brown. Olive oil remains dearer from £35. per tun for Malaga. Olive oil soap firm at the advances from £18. 10s. per ton, ex quay, nett. Castor oil, cold drawn, 29s. to 30s. per cwt. in barrels; 3½d. per lb in cases; first pressure, 27s. 6d in barrels. Resins firm, but unchanged. Tallow from 28s. 6d. Cod oil, £16. to £19. Turpentine unchanged.

CAKES.—Linseed cakes steady in price, but demand quiet; 95% pure, £8. 15s. to £8. 17s. 6d. per ton. Oilcakes (linseed), £7 10s. to £7. 12s. 6d.; Russians, £8 to £8. 5s.; Americans, none. Cotton cakes firm, demand improving, the price being now considered low; best makes, £4. 13s. 4d. to £4. 15s.; seconds, £4. 7s. 6d. to £4. 12s 6d. Decorticated, none. Rape Cakes: Black Sea, £4. 10s. to £4. 12s 6d. per ton.

PAINTS.—Demand very quiet, and makers ditto; prices are unchanged.

WEST OF SCOTLAND CHEMICALS.

Glasgow, Tuesday.

The prices of lubricating oils (mineral) remain as before in the meantime, but business is confined to transactions for prompt delivery only, the makers meanwhile declining to engage themselves forward. The incentive in this is the action of the importers of foreign lubricants, which speaks to change, and not unlikely to an advance. All the other shale oil products are steady at quotations as recently given. Sulphate of ammonia sticks to the down grade, at about its usual weekly rate, and prompt Leith to-day may be got for £10. 7s. 6d. In the general market firmness is still the rule, and some lines are still scarce and inclined to the rise—caustic soda, for instance. The week's imports of sugar at Greenock were 30,660 bags, 239 hhds., and 25 barrels—all beet unrefined

Chief prices current are:—Alum in lump, £4 5s. to £4. 15s. nett, Glasgow; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 10s., all

nett, Liverpool; chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5. 10s.; 885°, £6. to £6. 10s. and 890/895°, £6. 15s. to £7. salammoniac, first and second white, £40 and £38. nett, any port; saltcake, 26s.; soda crystals, £2 15s. to £2. 17s. 6d., basis, nett, Tyne; soda ash, £4. 10s. to £4. 15s., nett Tyne; sulphate of ammonia, £10. 7s. 6d. prompt, f.o.b. Leith; sulphate of copper, £25. to £25. 2s. 6d, less 5% Liverpool; white alkali, £5. to £5. 7s. 6d. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are in fair demand, and prices are well maintained, without alteration. Soda crystals are £2. 17s. 6d. per ton, gross weight, locally. Caustic, 70%, £9. 5s., 76/77%, £10. per ton. Sulphur scarce at £4. 15s. per ton.

Bleaching powder, softs, £6. per ton, nett; do, hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £10., and 70%. £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do, 50%, £4. 17s. 6d per ton, nett; do., 52%, £5 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%. £5. 2s. 6d. per ton, nett; do., 50%. £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. 0d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is steady at 9s. 6d. per ton, f.o.b. Tees.

COALS.—The coal trade continues exceptionally firm, and high prices all round are the rule Coke is in strong demand at 25s. to 26s. per ton, free on board. To-day's prices:—Best Northumbrian steam, 12s. 6d. to 13s. per ton; second qualities, 11s. 6d to 12s. per ton; small steam, 7s. 6d. to 8s. per ton; bunker coals, 12s 3d. to 12s. 6d. per ton; gas coals, 12s. 6d. to 13s. 6d.; coke, 25s. to 26s. per ton.

New Companies.

England's Chemical Manufacturing Co., Ltd.—CAPITAL £10,000. in £1. shares. This company has been formed to acquire the business carried on at Stratford, E., as R. England and Co., and to carry on the business of chemical, oil of vitriol, muriatic acid, nitric acid, and artificial manure manufacturers, etc.

W. Cawood & Sons, Ltd.—CAPITAL £10,000. in £1. shares. This company has been formed to acquire the business carried on by W. Cawood & Sons, at Hull, to adopt an agreement with the said vendors, and to carry on the business of oil refiners and boilers, manufacturers and merchants, disinfectant and sheep dip manufacturers and merchants, chemists, druggists, etc., importers, exporters and merchants.

Ozonal, Ltd.—CAPITAL £21,000. in £1. shares. This company has been formed to acquire the business carried on by A. Spranger, at 19, Braunton Mansions, Rosebery Avenue, to adopt an agreement with C. E. C. Townsend, and to carry on the business of chemists, druggists, etc. The subscribers to the memorandum of association are:—J. C. Wheeler, Albany Chambers, Queen Anne's Gate, S.W., solicitor; E. H. Antill, 31, Railton-road, Brixton, S.W., clerk; F. Williams, 46, Lauderdale Mansions, Maida Vale, W., secretary; W. Hillstead, 1, Willowbrook-road, Peckham, S.E., clerk; W. C. Milton, 10, Elmar-road, Tottenham, clerk; G. C. Brown, 78, Antill-road, Bow, E., clerk; A. A. Willoughby, Eastdene, Loughton, clerk.

Fowey China Clay Co., Ltd.—CAPITAL £25,000. in £1. shares. This company has been formed to acquire the business carried on by A. C. A. Lechenich and G. F. T. Beale, at Fowey, Cornwall, as A. Lechenich and Co., and The Fowey China Clay Co, and to carry on the business of china clay and stone merchants, china and earthenware manufacturers, potters, makers of straw and millboards, etc., and all chemicals and materials used in the manufacture of paper. The subscribers to the memorandum of association are:—A. C. A. Lechenich, Norway House, Loswithiel, Cornwall, merchant; G. F. T. Beale, Bolton House, Fowey, Cornwall, merchant; J. E. Bingham, West Lea, Sheffield, merchant and manufacturer; A. E. Bingham, Raumon Grange, Sheffield, merchant and manufacturer; T. E. Shuttleworth, 25, Priory-road, Sheffield, chartered accountant; T. E. Shuttleworth, 19, Endcliffe Rise-road, Sheffield, chartered accountant; C. Barker, 37, Westbourne-road, Sheffield, solicitor.

British Pluvinsin Co., Ltd.—CAPITAL £80,000. in £1. shares. This company has been formed to adopt an agreement with Hansell Bros, and to carry on the business of manufacturers of imitation leather, leather cloth, cardboard, paper, cloth, tarpaulins, waterproof cloth, macintoshes, and textile materials of all kinds, and to produce, manufacture, and deal in chemicals, drugs, dyes, colours, etc. The subscribers to the memorandum of association are:—F. Taylor, 11, Fountain street, Manchester, merchant; G. H. Winterbottom, The Towers, Didsbury, merchant; W. Cherry, Spring Clough, Worsley, manufacturer; A. Hansel, Sidanstrane, wo Dresden, manufacturer; C. Escher, via Lazzaretts, vecchis 19, Trieste, merchant; W. H. Buckley, M.P., Park Croft, Rusholme, Manchester, gentleman; M. Brickhill, Clarendon Avenue, Heaton Moor, Stockport, clerk. Registered office, 12, Newton-street, Manchester.

Gazette Notices.

PARTNERSHIP DISSOLVED.

R. W. DONOGHUE, C. BOOTHBY, and G. BOOTHBY, analytical and manufacturing chemists, Church Wharf, Church-row, Limehouse E., under the style of the British Boiler Fluid and Engineers' Stores Co., so far as regards G. Boothby.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending November 4th.

Acetic Acid—

Holland,	145 pks.	Little & Johnston
,,	60	R. W. Greeff & Co.
,,	105	A. & M. Zimmermann

Acetone—

Germany,	13 pks.	J. Norrenberg & Co.

Alkali—

France,	2 t. 10 c.	J. Barber & Co.
Holland,	10	G. S. N. Co.

Ammonium Phosphate

Holland,	7 pks	Chemical Works

Antimony Ore—

S. Russia,	30 t.	R. H. Timmon
Victoria,	14	J. J. Pratt & Son
Turkey,	12	J. Bamber

Arsenic—

Portugal,	260 pks.	Coverley & Westray

Barium Sulphate—

Holland,	38 pks.	J. L. Lyon & Co.

Barytes—

Belgium,	66 pks.	J. L. Lyon & Co.
,,	198	W. Harrison & Co.
Holland,	47	Thames S. T. & L. Co., Ld.
,,	303	W. Harrison & Co.
,,	57	J. L. Lyon & Co.
Germany,	65	,,
,,	91	W. Harrison & Co.

Bleaching Powder—

Holland,	40 pks.	J. M. Steel & Co.

Bones—

Sydney,	6 t.	Flack, Chandler & Co.
Melbourne,	10	Culverwell, Brooks, & Co.

Borax—

Germany,	£30	Craven & Co.

Bromine—

Cape,	13 pks.	Findlay, Durham, & Co.

Caoutchouc—

Germany,	4 t.	2 c.	K. Kiver & Co.
,,		10	Lewis & Peat
Straits,	8	10	Butler's Wf., Ld.
,,	18	13	L. & I. D. Jt. Co.
,,	11	15	E. Boustead & Co.
,,	2		Elkan & Co.
Madagascar,	2	7	Prop. Bull Wf.
,,		15	Procter Brs.
France,	1	3	H. Johnson & Sons
,,		6	Prop Bull Wf.
Zanzibar,		7	Hale & Son

Castor Oil—

France,	85 pks.	F. Boehm
E. Indies,	90 cks.	Cayzer, Irvine, & Co.
Italy,	25 cs.	Nichs. Wvs., Ld.

Caustic Potash—

Germany,	5 pks.	Vinolia Co.

Chemicals *(otherwise undescribed)*

France,	£10	Mory & Co.
Belgium,	70	T. Palmer
,,	15	O. Scholzig
,,	10	John Cockerill Line
Sweden,	10	M. D. Co.
U. States,	380	B. & F. Wf. Co. Ld.
,,	8	R. E. Drummond & Co.
,,	12	R. Davies & Co.
Germany,	9	Argo S. S. Co.
,,	32	A. & M. Zimmermann
Holland,	90	Netherlands S. B. Co.

Chlorine—

Germany,	£45	A. & M. Zimmermann

Coal Products—

Pitch

France,	60 cks.	H. Hill & Sons
Austria,	50 brls.	Fellows, Morton, & Co.
Germany,	50	,,

Colours—

Germany,	3 cks.	Craven & Co.

Copperas—

Germany,	£65	Burgoyne & Co.

Copper Sulphate—

Germany,	15 pks.	Charles & Fox

Cream of Tartar—

Holland,	2 pks.	Kirkpatrick, Barr, & Co.
France,	4	Blackmore, Leconte, & Co.
,,	5	M. Ashby, Ld.
,,	16	F. C. Devon & Co.
,,	5	C. Christophersen & Co.
,,	15	W. C. Bacon & Co.
,,	7	B. & F. Wf. Co., Ld.

Dyestuffs—

Argols

Italy,	539 pks.	B. Jacob & Sons
,,	255	Thames S. T. & L. Co, Ld.

Cochineal

Canaries,	9 pks.	Hendry & Martin
,,	50	Swanston & Co
,,	46	Knowles & Foster

Cutch

Rangoon,	50 pks	L. & I. D. Jt. Co.
Straits,	9	Borneo Co.

Extracts

France,	16 pks.	L. J. Levenstein & Sons

France, 10 pks. Beresford & Co.
" 40 T. H. Lee
" 10 H. Johnson & Sons
Austria, 63 Fellows, Morton, & Co.
" 34 Hoare, Wilson & Co.
Denmark, 2 M. D. Co.
Canada, 55 Furness, Withy, & Co
U. States, 50 W. Burton & Sons

Gambier
Straits, 443 pks. W. Pope & Co.
" 172 W. France & Co.
" 681 J. Greig
" 77 R. & J. Henderson
" 993 Brown & Elmslie

Indigo
Germany, 12 chts. Bilber & Co.
E. Indies, 16 Stutz & Co.
" 8 Elkan & Co.
" 4 Arbuthnot, Latham, & Co.
" 12 Parsons & Keith

Myrabolams
E. Indies 2,010 pks. W. Shelcott & Sons
" 1,369 H. J. Perlbach & Co.
" 1,210 J. Graves

Saffron
Spain, 1 pk. Richardson, Spence, & Co.

Sumach
Italy 14 pks. Oakley & Son
" 500 A. Frey & Co.

Tanners' Bark
Adelaide, 25 t. Leach & Co.
Melbourne, 44 Fisher, King, & Co.
" 55 Escombe Brs. & Co.
Natal, 14 Bullard, King, & Co.
" 6 A. & W. Nesbitt
Belgium, 10 Leach & Co.

Turmeric
E. Indies, 27 pks. Lewis & Peat

Valonia
A. Turkey, 10 c. J. Knill & Co
" 50 t. Boutcher, Mortimore & Co.

Farina—
Germany, 300 pks. T. Palmer
" 200 R. Bennett & Co.
" 100 Dunlop Brs. & Co.
Holland, 150 J. Knill & Co.
" 50 J. Barber & Co.
Italy, 6 L. & I. D. Jt. Co.

Glucose—
U. States, 314 pks. 214 c. Trier, Meyer, & Co,
" 930 950 C. Mangold & Co.
" 500 500 Pickford & Co.
" 200 250 C. Barnard
" 200 1,103 Ohlenschlager Brs.
" 2 062 2,321 R. G. Hall & Co.
Holland, 250 350 "
Germany, 200 200 J. Frank & Ohlmann
" 100 103 Trier, Meyer, & Co.
France, 400 400 L. Norman & Co. Ld.
" 400 400 W. E. Cole

Glue—
Germany, £24 Otto Schmidt & Co.
" 810 T. M. Duche & Sons
" 110 L. & I. D. Jt. Co.
" 23 Argo S. S. Co.
" 14 M. D. Co.
" 160 T. H. Lee
Belgium, 30 "
" 681 J. Harrison
" 531 Becker & Wagner
" 300 Colonial & Granite Wvs.
" 300 G. E. Banes
France, 16 W. Johnston & Co.
" 450 T. M. Duche & Sons
" 40 Burnett Brs. & Sons
" 116 Mory & Co.
" 12 Bennett S. S. Co.
U. States, 53 Ldn. Parcels Del. Co.
" 25 L. & I. D. Jt. Co.
" 290 Anglo.-Amer. Oil Co.
" 65 W. Dixon

Glycerine—
Holland, £400 J. Barber & Co

Gutta Percha—
Holland, 12 t. Anderson, Weber, & Smith
Straits, 71 6 c. Soundy & Sons
" 32 12 L. & I. D. Jt. Co.
" 6 5 Anderson, Weber, & Smith
" 5 5 Kleinwort, Sons & Co.
" 27 10 H. W. Jewsbury & Co.
Germany, 17 Atlantic Transport Co.

Lead Acetate—
Germany, 24 pks. F. Boehm

Manure—
E. Indies, 500 t. A. Hunter & Co.
" 89 Fox, Roy, & Co.
Belgium, 35 A. & P. Keen
U. States, 11 A. R. Davis & Co.

Methylic Alcohol—
France, 240 g. Lister & Biggs
" 20 dms. E. J. Catlin

Molasses—
U. States, 200 cks. 1,245 c. Grimsdale & Son
" 50 285 W. & W. H. Stead
" 260 1,000 F. Claydon & Co.

Ochre—
France, 20 pks. L. & I. D. Jt. Co.
Italy, 15 W Harrison & Co.
Holland, 10 Phillipps & Graves

Phosphate—
Algeria, 1,700 t. Anglo-Contl. Guano Works
Belgium, 30 Chemical Works (Late H. & E. Albert)
" 10 T. H. Lee
" 200 West & Penrose
U. States, 2,530 W. Smith & Co.
France, 135 A. Hunter & Co.

Potash—
Germany, 11 pks. Vokins & Co., Ld.
" 2 T. H. Lee

Potassium Carbonate—
Germany, 29 t. 6 c. Gas Light & Coke Co.
" 20 Petri Brs.
" 6 A. & M. Zimmermann
" 1 18 c. R. W. Greeff & Co.

Pyrogallic Acid—
Germany, 35 pks. L. & I. D. Jt. Co.

Red Lead—
Holland, 2 pks. J. Owen
" 23 Perkins & Homer

Rosin—
Brunswick, 937 brls. Prod. Brokers' Co.
Holland, 3 J. Owen
U. States, 1,000 T. Nickels & Co.
" 482 J. Hudson & Co.
France, 27 C. W. Schmidt

Saltpetre—
Germany, 40 pks. P. Hecker & Co.
" 16 cks. "
Holland, 120 "
E. Indies, 567 bgs. Perkins & Homer

Soda—
Germany, 2 t. 10 c. Argo S. S. Co

Soda Crystals—
Belgium, 30 t. Leach & Co.

Soda Lye
Sweden, 7 pks. R. Waters

Potassium Bicarbonate—
Holland, 1 t. T. H. Lee

Starch—
Belgium, 40 pks. J. Barber & Co.
" 58 Leach & Co
" 317 E. & T. Pink
" 40 Bryce & Rumpff
" 350 T. H. Lee
" 280 T. Ronaldson & Co.
France, 200 A. C. Hitchcock
" 3,430 W. E. Cole
" 1,615 E. & T. Pink
Holland, 330 "
" 273 Little & Johnston
" 250 J. R. Francis & Co.
" 45 G. S. N. Co.
U. States, 80 Valentin. Tod, & Co.
Germany, 5 Craven & Co.
" 1,404 Horne & Co.

Stearine—
N.S.W., 51 cks. Hoare, Wilson, & Co.
Germany, 5 Craven & Co.
Denmark, 1 C. S. Lovell
Holland, 25 Netherlands S. B. Co.
" 50 bgs. T. H. Lee
Belgium, 63 H. Hill & Sons
" 151 "

Sulphur—
Italy, 28 t. J. Kitchin Ld.
" 200 A. E. Hart
" 16 J. Greig
" 130 G. Boor & Co.
" 7 W. Harrison & Co.

Superphosphates—
Belgium, 12 t. T. H. Lee

Tallow—
N. Z., 200 cks. Col. Consign. & Dist. Co.
" 163 Goad, Rigg, & Co.
" 72 Phillipps & Graves
" 6 Culverwell, Brooks, & Co.
N.S.W., 65 "
" 120 Elkan & Co.
" 214 Aust. Meat Co.
" 300 Phillipps & Graves
" 158 Hoare, Wilson, & Co.
" 38 Deering & Robottom
" 437 Beresford & Co.
" 52 trcs. "
" 316 pks. G. S. Yuill & Co.
Victoria, 250 cs. "
" 135 pks. J. W. Cook & Co
" 78 Prell, Rushall, & Co.
" 777 cks. Elkan & Co.
" 169 H. Lambert
" 125 Capes & Self
Sydney, 69 "
" 115 Beresford & Co.
" 372 Phillipps & Graves
" 74 Union Ltge. Co., Ld.
" 468 Goad, Rigg, & Co.
Belgium, 10 J. Baker
" 3 T. H. Lee
Denmark, 3 C. S. Lovell
Holland, 5 Phillipps & Graves
Germany, 5 C. Oertell
" 108 trcs. C. S. Lovell
U. States, 15 bxs. Armour & Co.
" 39 cks. Lunham & Moore
" 1,050 Price's Pat. Candle Co.
" 122 L. Thompson & Co.
France, 76 bgs. McDougall & Co.
" 132 H. Hill & Sons

Tartar—
Italy, 15 pks. Howards & Sons
" 38 B. Jacob & Sons

Tartaric Acid—
Germany, 49 pks. F. C. Devon & Co.

Ultramarine—
Holland, 4 pks. B. Gallaway
" 1 Netherlands S. B. Co.
" 2 Robinson, Roberts & Co
" 5 G. S. N. Co.
" 20 Steinhoff, Sons, & Co.
Belgium, 10 J. Harrison
Germany, 2 Argo S. S. Co.

Varnish—
U. States, 6 pks. Pinchin, Johnson, & Co
Germany, 11 "

Verdigris—
France, 1 pk. B. & F. Wf Co., Ld.

Washing Powder—
Belgium, 20 t. Luke & Bailey

Waste Salt—
Germany, 50 t. F. W. Berk & Co., Ld.

White Lead—
Holland, 37 pks P. Jantzen
" 2 M. Ashby, Ld.
" 45 Burrell & Co.
" 49 D. Storer & Sons
France, 12 J. Watt & Son
Germany, 12 H. Lambert
" 50 Randall Brs.
" 25 W. A. Rose & Co.
" 36 Wilkinson, Heywood & Co.
Belgium, 63 J. L. Lyon & Co.
" 31 G. E. Banes
" 111 R. Steuart
Norway, 20 R. W. Greeff & Co.

Wood Pulp—
Germany, 200 pks. T. H. Lee
" 28 W. Friedlaender
Sweden, 500 Tough & Henderson
" 4,256 Henderson, Craig, & Co.
" 800 Alsing & Co.
Norway, 800 E. J. & W. Goldsmith
" 3,200 Andrews & Co., Ld.
" 400 E Lloyd, Ld.
Denmark, 240 Johnsen & Jorgensen
Holland, 167 Thames S. T. & L. Co., Ld.
" 150 A. E. Reed & Co.
Belgium, 5,614 J. Harrison
U. States, 546 C S. Lovell

Zinc Oxide—
Holland, 50 pks. J. Matton
" 140 M. Ashby, Ld.
Germany, 500 Soundy & Sons

Zinc White—
Holland, 80 pks. Spies Brs. & Co.

Zinc Sulphate –
Sweden, 20 pks. A. G. Barker

LIVERPOOL.

Week ending November 2nd.

Acetate of Lime—
New York, 1,113 bgs.

Asbestos—
Montreal, 500 bgs.

Barytes—
Antwerp, 50 bgs.
" 52 cks.
Rotterdam, 150
" 100 bgs.

Bone Black—
Philadelphia, 30 brls. E. F. Houghton & Co.

Bones—
Antofagasta, 208 sks. Kleinwort, Sons, & Co.

Borate of Lime—
Antofagasta, 2,800 sks.
Iquique, 2,261
Mollendo, 5,714 Borax Con ol. Co.

Castor Oil—
Calcutta, 373 cs. Ralli Brs.

Chrome Ore—
Volo, 3 bgs. Geo. G. Blackwell, Sons, & Co.
" 400 t.

Coal Products—
Pitch
Stettin, 80 bgs. N. Johannsen & Dahl

Colours—
Antwerp, 4 cks.
Rotterdam, 4
" 11 tubs

Copper Oxide—
Rotterdam, 5 cks.

Cottonseed Oil—
Newport News, 130 brls.

Cream of Tartar—
Barcelona, 5 cks. F. L. Sitzler
Bordeaux, 22
Valencia, 5

Dyestuffs—
Cochineal
Las Palmas, 8 bgs. Kullmein & Co.
" 15 Canary Tradg. Co.
Cutch
Singapore, 600 bxs.
Extract
Ghent, 20 brls.
Havre, 11 cks. Cunard S. S. Co.
New York, 75 brls. McArthur & Co.
" 25
Philadelphia, 35
Rotterdam, 20 cks.

Farina—
Fiume, 390 bgs.
Stettin, 30 W. Slater

Glucose—
New York, 99 brls.

Glue—
Boston, 5 bls.
Hamburg, 4 cks.
New York, 50 cs. Eng. & Amer. Mchny Co.
Rotterdam, 130 bgs.

Glue Stock—
Hamburg, 34 bls.

Iron Oxide—
Trieste, 6 cks.

Lead Acetate—
Stettin, 51 bks. Johnson Clapham

Litharge—
Rotterdam, 6 cks.

Logwood—
Queenstown, 15 t. 10 c. Ellison, Banks, & Co.

Manganese—
Yokohama, 450 t.

Mineral White—
Trieste, 100 bgs.

Paint—
New York, 1 bdl.

Paraffin Wax—
New York, 360 brls. Thompson & Bedford

Phosphates—
Pensacola, 2,000 t.
Savannah, 1,654

Phosphorus—
Montreal, 75 cs.

Potassium Carbonate—
Stettin, 9 cks. Sache & Klemm

Potassium Prussiate—
Bordeaux, 10 cks.

Pyrites—
Huelva, 3,155 t. Matheson & Co.
Red Lead—
Rotterdam, 141 cks.
Rosin—
Baltimore, 1,000 brls.
Savannah, 1,000
Soap—
Bordeaux, 1 pk.
Hong Kong, 1 bx.
N. Orleans, 1,693 brls.
New York, 1,100 bxs. B. T. Babbett
Soapstone—
Bordeaux, 630 bgs. Geo. G. Blackwell, Sons, & Co.
Genoa, 100
Sodium Silicate—
Constantinople, 4 brls.
Sodium Sulphate—
Antofagasta, 2 cs. Avelino Aramayo
Spirits of Turpentine—
Savannah, 3,454 brls.
Starch—
Antwerp, 130 cs. J. T. Fletcher & Co.
" 54
Baltimore, 400 bgs.
Newport News, 800 sks.
New York, 799 bgs. T. M. Duche & Sons
Rotterdam, 220 cs.
Talc—
Genoa, 40 bgs.
Tallow—
B. Ayres, 550½ pps. 557 hhds.
New York, 488 tcs
Philadelphia, 100 Armour & Co.
" 65
Rotterdam, 67 cs. 27 bgs.
Zarate, 201 pps.
Tartaric Acid—
Hamburg, 4 cks.
Turpentine—
Constantinople, 1 cs.
Ultramarine—
Hamburg, 12 cks.
Rotterdam, 40
Varnish—
New York, 96 brls. W. A. Warren
Rotterdam, 3 cks.
Verdigris—
Bordeaux, 3 cks.
White Lead—
Antwerp, 8 cks.
Rotterdam, 116 39 cs.
Wood Pulp—
Gothenburg, 31 bls. G. Schenkenwald & Co.
" 13 L. & N. W. Rly. Co.
Halifax, 350 Maritime Sulp. Co.
Quebec, 850 Wortheim & Co.
Rotterdam, 160 pks.
Zinc Ashes—
Genoa, 55 bgs.
Zinc Oxide—
Rotterdam, 10 brls.
Stettin, 40 cks. H. Davidson & Son
Zinc White—
Rotterdam, 5 cks.

MANCHESTER.

Week ending November 4th.

Alumina Sulphate—
Ghent, 40 bgs. J. T. Fletcher & Co.
Ammonia—
Rotterdam, 50 cldrs.
Antimony Salt—
Rotterdam, 1 ck.
Barytes—
Antwerp, 320 bgs.
Rotterdam, 16 cks. 7 bgs.
Caoutchouc—
Alexandria, 1 cs.
Caustic Potash—
Hamburg, 9 dms.
Chalk—
Rouen, 6 cs.
Coal Products—
Alizarine
Rotterdam, 16 cks.
Aniline Colours
Rotterdam, 45 cks. 10 cs.
Naphthylamine
Rotterdam, 1 ck.
Pitch
Antwerp, 13 brls.
Colours—
Antwerp, 20 cks. 13 cs.
Hamburg, 4
Rotterdam, 16 7 73 brls.
Rouen, 3
Dyestuffs—
Extract
Ghent, 25 cks.
New York, 50 bxs.
Rotterdam, 10 cks.
Rouen, 15
Farina—
Danzig, 50 bgs. W. H. Stott & Co.
Stettin, 900 "
" 2,500 Browne, Gevcke & Co.
Gelatine—
Rotterdam, 5 cs.
Rouen, 22 bls.
Glue—
Antwerp, 9 bls.
Ghent, 10
Hamburg, 10 bgs.
Rotterdam, 115 4 cks.
Rouen, 131 25
Stettin, 100 bgs. W. H. Stott & Co.
Glue Stock—
Hamburg, 107 bgs. 29 bls.
Glycerine—
Rotterdam. 2 dms.
Gutta Percha—
Hamburg, 1 cs.
Lead Acetate—
Stettin, 3 cks. W. H. Stott & Co.
Limestone—
Antwerp, 2 cs. J. T. Fletcher & Co.
" 11 crls. 5
Lithopone—
Rotterdam, 60 cks.
Paraffin Wax—
New York, 1,416 brls.
Potash—
Hamburg, 7 cks.
Potassium Prussiate—
Antwerp, 6 cks.
Red Lead—
Rotterdam, 8 cks.
Soap—
Hamburg, 1 cs.
Soda—
Rouen, 9 cks.
Sodium Nitrate—
Rotterdam, 19 cks.
Sodium Phosphate—
Rotterdam, 34 cks.
Sodium Prussiate—
Antwerp, 23 cks.
Starch—
Antwerp, 1,264 cs.
Hamburg, 50 cks. 140
New York, 400 bgs.
Newfairwater, 394 W. H. Stott & Co.
Rotterdam, 80 cks. 10 cs.
Stearine—
Antwerp, 13 bgs.
Rotterdam, 159 bls.
Tallow—
Hamburg, 40 tcs.
Tannin—
Hamburg, 2 cs.
Tartar Emetic—
Hamburg, 9 cks.
Tartaric Acid—
Rotterdam, 40 cks.
Waste Salt—
Hamburg, 400 bgs. (and a qty.)
Wood Pulp—
Buena Vista Bay, N'fd., 2,500 lds.
Hamburg, 130 pks.
Sarpsborg, 1,921 bls. Kellner Partington P. P. Co.
Zinc Acetate—
Hamburg, 1 ck.
Zinc Oxide—
Antwerp, 10 cks.
New York, 200 brls.

HULL.

Week ending November 4th.

Acetic Acid—
Rotterdam, 20 btls. Hull & Netherlands S. S. Co.
Antimony—
Dunkirk, 2 cks. Wilson, Sons, & Co., Ld.
Barytes—
Amsterdam, 62 cks. Hull & Netherlands S. S. Co
Antwerp, 33 Wilson, Sons, & Co., Ld.
Bremen, 76 Sissons Brs. & Co.
Rotterdam, 42 Hull & Netherlands S. S. Co.
Boracic Acid—
Leghorn, 28 brls. Wilson, Sons, & Co., Ld.
Castor Oil—
Leghorn, 10 cs. Wilson, Sons, & Co., Ld
Marseilles, 18 cks. "
" 3
" 53 cs.
Chemicals *(otherwise undescribed)*
Hamburg, 1 ck. Sissons Brs. & Co.
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.
Chromium Acetate—
Rotterdam, 1 brl. Hull & Netherlands S. S. Co.
1 pk.
Coal Products—
Alizarine
Rotterdam, 233 pks. Hull & Netherlands S. S. Co.
31 brls.
Aniline
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.
210 pks.
Creosote Salt
Rotterdam, 16 cks. Hull & Netherlands S. S. Co.
Tar
St. Petersburg, 9 cks. Wilson, Sons, & Co., Ld.
Tar Oil
Wasa, 50 brls.
Colours—
Antwerp, 20 pks. Wilson, Sons, & Co., Ld.
" 8 pks
Leghorn, 8 cs.
Marseilles, 29 "
Rotterdam, 14 brls. 5 cks. 74 pks. Hull & Netherlands S. S. Co.
Cream of Tartar—
Bordeaux, 9 cks.
Rotterdam, 2 Hull & Netherlands S. S. Co.
Dyestuffs—
Extract
Bordeaux, 85 cks.
Dunkirk, 8
Hamburg, 1 Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 10 pks. Hull & Netherlands S. S. Co.
12 brls.
Dyewood—
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.
Farina—
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.
" 50
Harlingen, 50 bls. Hull & Netherlands S. S. Co.
Stettin, 647 bgs. Wilson,
" 300 Sons, & Co., Ld.
Gelatine—
Rotterdam, 3 cs. Hull & Netherlands S. S. Co.
Glucose—
New York, 240 bgs. Wilson,
350 brls. Sons, & Co., Ld.
Rotterdam, 60 bgs. Hull & Netherlands S. S. Co.
Glue—
Christiania, 1 bg. Wilson, Sons, & Co., Ld.
Dunkirk, 1 ck. "
Rotterdam, 2 cs. Hull & Netherlands S. S. Co.
Glue Stock—
Hamburg, 99 pks. Wilson,
101 bls. Sons, & Co., Ld.
Glycerine—
Rotterdam, 21 cks. Hull & Netherlands S. S. Co.
Horn Pith—
St. Petersburg, 630 pks. Wilson, Sons, & Co., Ld.
Lithopone—
Rotterdam, 40 cks. Hull & Netherlands S. S. Co.
Logwood—
Hamburg, 30 bgs. Wilson, Sons, & Co., Ld.
Ochre—
Marseilles, 7 cks. Wilson, Sons, & Co., Ld.
" 67
Paint—
Copenhagen, 42 dms. Wilson, Sons, & Co., Ld.
Phosphates—
Bona, 2,100 t. Hammond, Emes, & Co
Dunkirk, 181
Phosphorus—
Hamburg, 5 cs. Wilson, Sons, & Co., Ld.
Potash—
Dunkirk, 8 dms. Wilson,
17 cks. Sons, & Co., Ld.
Potassium Carbonate—
Antwerp, 25 dms. Wilson, Sons, & Co., Ld.
Red Lead—
Rotterdam, 8 cs. Hull & Netherlands S. S. Co.
Saltpetre—
Hamburg, 7 cks. Lofthouse & Saltmer
Soap—
Marseilles, 6 cs. Wilson, Sons, & Co., Ld.
Naples, 46 "
Soda—
Antwerp, 200 bgs. Wilson, Sons, & Co., Ld.
Ghent, 120 "
Sodium Sulphite—
Antwerp, 12 pks. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 26 bgs. Hull & Netherlands S. S. Co.
40 cs.
Antwerp, 400 Wilson, Sons, & Co., Ld.
Bremen, 1,867 pks. Veltmann & Co.
Ghent, 208 cs. Wilson, Sons, & Co., Ld.
Stearine—
Antwerp, 79 bgs. Wilson, Sons, & Co., Ld.
Sulphate (Alumina)—
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.
Sulphur—
Catania, 52 t. 70 cks. 260 bgs.
Sulphuric Acid—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.
Tallow—
Dunkirk, 198 cks. Wilson, Sons, & Co., Ld.
Tartar—
Messina, 1 ck. Wilson, Sons, & Co., Ld.
Tartaric Acid—
Rotterdam, 13 cks. Hull & Netherlands S. S. Co.
Turpentine—
Libau, 50 cks.
Riga, 22 brls. 52 cks.
Ultramarine—
Bremen, 28 cks.
White Lead
Amsterdam, 12 cks. Hull & Netherlands S. S. Co.
Ghent, 7 Wilson, Sons, & Co., Ld.
Rotterdam, 60 Hull & Netherlands S. S. Co.
21 cs.
Wood Pulp—
Abo, 423 bls. J. Good & Sons
Christiania, 1,620 pks. Wilson, Sons, & Co., Ld.
Drontheim, 1,200 "
Gothenburg, 84 "
" 1,322 bls.

Zinc White—
Amsterdam, 5 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending November 9th.

Acetate of Lime—
Philadelphia, 282 bgs.
Alum—
Rotterdam, 9 cks. J. Rankine & Son
Alumina—
Antwerp, 90 bgs. Crawford & Co.
Antimony—
Rouen, 2 cks.
Barium Chloride—
Hamburg, 1,500 bgs.
Barium Sulphate—
Antwerp, 250 bgs. / 98 cks.
Barytes—
Rotterdam, 43 cks. J. Rankine & Son
100 bgs.
Hamburg, 38 cks.
Bichromate—
Hamburg, 57 cks.
Bleach—
Hamburg, 174 cks.
Castor Oil—
Antwerp, 112 cks.
Coal Products—
Alizarine
Rotterdam, 164 cks. J. Rankine & Son
6 cs.
Aniline
Rotterdam, 53 cks. J. Rankine & Son
11 cs.
Aniline Salt
Rotterdam, 3 cs. J. Rankine & Son
Colours—
Hamburg, 28 cks.
Rotterdam, 158 pks.
" 2 brls. / 6 cks. / 3 cs. J. Rankine & Son
Cream of Tartar—
Bordeaux, 5 cks
Dyestuffs—
Extract
Antwerp, 32 cks.
Rouen, 4
Indigo
Rotterdam, 20 cks. J. Rankine & Son
Gelatine—
Rotterdam, 1 cs.
Glue—
Hamburg, 20 bgs.
Rotterdam, 45 J. Rankine & Son
Rouen, 52 bls. / 47 cks.
Lead Sulphate—
Hamburg, 1 ck.
Magnesium Sulphate—
Hamburg, 1,000 bgs.
Ochre—
Rouen, 148 cks.
Painters' Colours—
Antwerp, 11 cks. / 5 cs.
Phosphates—
Antwerp, 1,010 bgs.
Potash—
Rotterdam. 20 cks.
Potassium Bromide—
Hamburg, 8 cs
Potassium Carbonate—
Hamburg, 41 cks.
Saltpetre—
Hamburg, 40 kgs.
Starch—
Antwerp, 180 cs. / 10 bgs.
Rotterdam, 13
Stearine—
Bordeaux, 10 bgs.
Rotterdam, 10 bls.
Tallow—
Philadelphia, 150 tcs.
Tannin—
Hamburg, 2 cs.
Tartar—
Oporto, 5 cks
White Lead—
Antwerp, 5 cks.
Rotterdam, 18 pks.
Wood Pulp—
Arundal, 500 bls.
Christiania, 485 / 36 cs.
Oporto, 400 bls.
Rotterdam, 71 J. Rankine & Son
Tonsberg, 970
Zinc Oxide—
Antwerp, 25 cks.
Zinc White—
Rotterdam, 25 cks. J. Rankine & Son
" 25 pks.

TYNE.

Week ending November 4th.

Acids—
Christiania, 1 pk.
Asbestos—
Hamburg, 3 crts. / 41 bgs. Tyne S. S. Co / 3 bdls.
Barytes—
Antwerp, 550 bgs. Tyne S. S. Co.
" 350
Rotterdam, 402 "
Calcium Carbide—
New York, 2,250 cs. Acetylene Gas Illuminating Co.
Colours—
Antwerp, 2 cks.
Hamburg, 1 cs. Tyne S. S. Co.
Rotterdam, 1 ck. "
Glue—
Antwerp, 23 bls. Tyne S. S. Co.
Rotterdam, 10 bgs. "
Glycerine—
Hamburg, 5 crbys. Tyne S. S. Co
Limestone—
Antwerp, 12 crts. Tyne S. S. Co.
" 14
Manure—
Harburg, 280 t.
Starch—
Rotterdam, 6 cs. Tyne S. S. Co.
Stearine—
Antwerp, 13 bgs. Tyne S. S. Co.
Tartaric Acid—
Rotterdam, 20 cks. Tyne S. S. Co.
Varnish—
Antwerp, 15 brls. Tyne S. S. Co
Wood Pulp—
Christiania, 880 bls.
Gothenburg, 274 bdls. 20 pks.

GOOLE.

Week ending November 1st.

Antimony—
Boulogne, 4 cks.
Barytes—
Antwerp, 80 bgs.
Rotterdam, 160
Caoutchouc—
Boulogne, 6 cks.
Colours—
Boulogne, 48 cks. 5 cs
Hamburg, 1
Rotterdam, 298 27 10 pks.
Dyestuffs—
Extract
Dunkirk, 10 cks.
Indigo
Rotterdam, 8 chts.
Farina—
Delfszhyl, 100 bgs.
Hamburg, 100
Glue—
Antwerp, 16 bls.
Hamburg, 5 bgs. 1 cs.
Logwood—
Belize, 404 t.
Phosphates—
Ghent, 1,616 bgs.
Potash—
Dunkirk, 20 cks. 54 dms.
Potassium Sulphate—
Antwerp, 6 cks.
Pyrites—
Bossmo. 1,400 t.
Saltpetre—
Rotterdam. 70 bgs.
Sodium Sulphide—
Hamburg, 38 cks.
Starch—
Ghent, 187 cs.

GRIMSBY.

Week ending November 4th.

Barytes—
Rotterdam, 100 bgs.
Caoutchouc—
Hamburg, 17 cs. 1 bl.
Rotterdam, 1
Chemicals *(otherwise undescribed)*
Antwerp, 2 cks. 3 cs 6 dms.
Hamburg, 1 11 pks.
Colours—
Antwerp, 5 cks. 27 pks.
Hamburg, 17 9 cs. 210
Rotterdam, 13
Dyestuffs—
Indigo
Hamburg, 4 cs.
Farina—
Hamburg, 125 bgs.
Glue—
Hamburg, 100 bgs. / 1 ck.
Rotterdam, 135 bs.
Starch—
Antwerp, 80 cs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 8th.

Acids—
Napier, 2 kgs. £16
Alkali—
Hamilton, 1 t. 1 c. £18
Ammonia—
Valparaiso, 10 cs. £14
Yokohama, 1 27
Cape Town, 12 100
Sydney, 2 c. 12
Ammonium Carbonate—
St. Petersburg, 21 t. 5 c. £633
New York, 25 kgs. 180
Singapore, 23 cs. 46
Ammonium Muriate—
Cologne, 25 cks. £164
Ammonium Sulphate—
Philadelphia, 30 t. £373
Jersey, 49 2 c. 53
Stettin, 50 550
Bremen, 20 220
Hamburg, 150 1,745
Marseilles, 43 514
Arsenic—
Calcutta, 5 t. £155
Borax—
Rockhampton, 3 t 3 c. £51
Calcium Chloride—
Lyttelton, 16 t. 7 c. £452
Carbonic Acid Gas—
Adelaide, 5 cyldrs £18
Caustic Potash
Yokohama, 14 c. £23
Caustic Soda—
Madeira, 2 t. 15 c. £23
Singapore, 3 6
Shanghai, 3 5
Lyttelton, 13 17
Fremantle, 4 2 94
Durban, 2 12 23
Pt. Elizabeth, 5 16 56
Chemicals *(otherwise undescribed)*
Cape Town, 1 tk. 1 cs. £41
Durban, 5 67
B. Ayres, 5 16
Adelaide, 13 pks. 77
Fremantle, 1 45
Ostend, 9 515
Yokohama, 22 103
Kobe, 10 cks, 75
Pt. Elizabeth 16 145
Seville, 1 13
Genoa, 1 12
Melbourne, 69 64
Auckland, 86 97
Antwerp. 111 512
St. Petersburg, 3 100
Sydney, 20 194
Dunedin, 3 15
Boulogne, 15 kgs. 6 7 158
Paris, 10 brls. 45 129
Citric Acid—
Malta, 3 kgs. £23
Brussels, 4 26
Karachi, 1 cs. 10
Lyttelton, 2 18
Lisbon, 5 c. 35
St. Petersburg, 3 t. 5 423
Coal Products—
Alizarine
Shanghai, 10 kgs. £35
Aniline
Calcutta, 1 cs. £12
New York, 1 13
Anthracene
Cologne, 124 cks. £288
Gothenburg, 500 453
Rotterdam, 455 659
Benzol
Antwerp, 24 cks £53
Carbolic Acid
Antwerp, 1 brl. £6
Sydney, 250 dms. 62
Coal Tar Dyes
Boulogne, 3 cks. £42
Creosote
St. Malo, 12 cks. 22,600 g. £325
Gibraltar, 40 brls. 45
Naphthaline
Calcutta, 10 kgs. £8
Philadelphia, 536 bgs. 132
Pitch
Melbourne, 10 frkns £8
Sydney, 10 brls —
Falkland I., 6 15
Antwerp, 1,169 t. 1,392
Dunkirk, 593 970
Hamburg, 26 54
St. John, N.B., 100 32
Havre, 840 1,428
Boston, 177 cks. 136
Wellington, 4 3
Pyridine
Cologne 18 cks. £180
Dusseldorf, 24 brls. 230
Hamburg, 8 dms 194
Tar
Calcutta, 100 rnlts. £87
Sydney, 50 dms. —
Madras, 9 12
Falkland Is., 10 brls. 15
Hamburg, 300 11
Yokohama, 8 21
Wellington, 4 cks. 5
Tar Oil
Boston, 250 cks. £210
Rosario, 124 brls. 112
Copper Sulphate—
Amsterdam, 1 t. 19 c. £47
Cream of Tartar—
Charters Towers, 2 c. £12
Fremantle, 11 47
Sydney, 1 t. 76
Rockhampton, 1 83
Disinfectants—
Cape Town, 3 cs. £19
Pt. Elizabeth, 749 pks. 72
Sydney, 8 23
Bordeaux, 4 cks. 17
Alexandria, 13 25
Foochow, 4 11
Havre, 10 21
Calcutta. 500 dms. 38
Wanganui, 13 24
Christchurch, 14 48
Adelaide, 5 brls. 10
Yokohama, 140 33
Jamaica, 23 23
Glycerine—
Rotterdam, 20 t. 6 c. £510
Manure—
Cape Town, 241 t. 4 c. £883
Charente, 52 240
Jersey, 115 664
Oxygen Gas—
Amsterdam 1 cs. £14
Phosphates—
Fremantle. 100 t. £230

Phosphorus—
Sydney, 13 cs £104
Potassium Carbonate—
Durban, 1 t. 1 c. £17
Potassium Chlorate—
Wellington, 3 c £5
Potassium Cyanide—
Shanghai, 6 cs. £28
Singapore, 10 75
Melbourne, 50 448
Fremantle, 9 t. 13 c. 932
Auckland, 15 1 550
Potassium Prussiate—
Calcutta, 5 kgs. 0 c. £59
Lisbon, 6 21
Yokohama, 10 45
Salammoniac—
Madras, 10 cks. £32
Saltpetre—
Montreal, 10 t. £200
B Ayres, 2 1 c. 41
Lyttelton, 10 10
Rio de Janeiro, 2 9 51
Rockhampton, 5 100
Adelaide, 1 11
Sheep Dip
B. Ayres, 66 t. 18 c. £1,500
Falkland Is., 2 95 cs. / 103 cks. 195 dms. 940
Gallegos, 4 / 2 t. 16 c. 101
Penang, 1 cs. 20 28
Soda—
Pt. Elizabeth, 1 t. £19
Soda Crystals—
Auckland, 2 t. £8
Durban, 1 10 c. 6
Sodium Bicarbonate—
Durban, 11 c. £5
Pt Elizabeth, 11 8
Havre, 2 t. 16
Sodium Hyposulphite—
Shanghai, 1 t. £9
Sodium Prussiate—
St. Petersburg, 2 t. 10 c. £137
Strychnine—
Rockhampton, 10 cs 499
Sulphur—
Pt. Elizabeth, 1 t. 19 c. £19
Trinidad, 6 36
Sulphuric Acid—
B. Ayres, 30 cs. £14
Madras, 25 11
Melbourne, 40 16
Alexandria, 12 12
Superphosphates—
Fremantle, 25 t. £77
Jersey, 78 260
Tartaric Acid—
Brisbane, 2 c. £11
Durban, 3 15

LIVERPOOL.

Week ending November 8th.

Acetic Acid—
Toronto, 9 c. £21
Ammonia—
St. John's, Nfd., 2 cs £8
Ammonia (Anhydrous)—
Corunna, 1 c £6
Malta, 14 3 q. 107
Ammonium Carbonate—
Libau, 1 t. £30
Vera Cruz, 5 c. 3 q. 15
Iquique, 2 3 7
Boston, 1 10 50
Montreal, 2 5
Hamburg, 6 3 14
Gothenburg, 15 17
Ammonium Muriate—
Hiogo, 2 t. 10 c. £51
Konigsberg, 10 10
Philadelphia, 12 9 2 q. 263
Ammonium Sulphate—
New York, 101 t. 10 c. £1,102
Las Palmas, 30 322
Almeria, 25 15 328
Genoa, 20 240
Samarang, 102 11 3 q. 1,208
Valencia 173 13 1 1,953
Arsenic—
San Francisco, 3 t. 11 c. £72
Basic Slag—
Brest, 693 t. 2 c. £1,049
Palermo, 497 bgs. 53
Bisulphite of Lime—
Rangoon, 24 brls. £50
Bleaching Powder—
Amsterdam, 80 cks.
Ancona, 82
Baltimore, 66
Bombay, 33 cs.
Boston, 726
Detroit, 26
Ghent, 70
Muncil, 72
Montreal, 127
Naples, 12
New York, 174
Oporto, 4
Philadelphia, 156
Spring Grove, 125
Tyrone, 41
Vera Cruz, 20
Windsor Mills, 33
Boracic Acid—
Montreal, 1 t. 4 c. £34
Cienfuegos, 10 35
Havana, 3 87
Borax—
Valparaiso, 10 c. 3 q. £8
Hamburg, 53 t 17 890
Ghent, 19 3 16
Vera Cruz, 1 15
Guayaquil, 1 16 32
Sydney, 1 2 17
Montreal, 15 £ 242
Santiago de Cuba, 1 15
Cape Town, 10 9 8
Cienfuegos, 1 18
Havana, 12 26
Calcium Chloride
Maranham, 1 t. £2
M. Video, 2 12 c. 6
Gothenburg, 5 3 12
Rio Grande, 9 2 20
Castor Oil—
Honolulu, 1 o dms.
Caustic Potash—
Havre, 1 t. 8 c. £16
Montreal, 1 16 46
Boston, 3 11 89
Cape Town, 10 12
Chicago, 2 2 56
Caustic Soda—
Adelaide, 10 bxs. 7 pks.
Alexandria 15 dms.
Algoa Bay, 20 cs.
Alivieria, 95
Amsterdam, 201
Antwerp, 85
Bahia. 10
Barcelona, 470 14 cks.
Bari, 134
Bilbao, 100
Callao, 330
Catania, 18
Chicago, 60 brls.
Corinto, 14
Dallas, 100
Dunkirk, 5
Fiume, 11
Fremantle, 140
Galatz, 375
Geelong, 10
Genoa. 405
Hamburg 107
Havana, 133
Helsingfors, 5
Ibrail, 115
Kobe, 87
Leghorn, 164
Lisbon, 48 20
Malaga 10
Melbourne, 23
Messina, 90
M. Video, 25
Montreal, 480 78
Naples, 281
New York, 100 50
Oporto, 94
Odessa, 80
Para, 25
Pasages, 20 25 pks.
Penang. 10
Pernambuco, 300
Perth. W.A., 25
Pittsburg, 50
Quebec, 35
Rangoon, 35
Rio de Janeiro, 40
Rotterdam, 34
Rouen, 112
Samarang, 50
Santander, 50
SantSebastian, 50
Savanilla, 50
Seville, 700 100 brls.
Shanghai, 50
Stettin, 18
St. Stephens, N.B., 59
Sydney, 70 5
Tarragona, 20 40
Trieste, 30
Valencia, 30
Valleyfield, 92
Vancouver, 25
Zanzibar, 20
Chemicals *(otherwise undescribed)*
Smyrna, 5 t. 6 c. £23
New York, 4 15 118
Penang, 3 300
Singapore, 3 300
M. Video, 20 18 3 q 58
Maranham, 15 2 27
Salonica, 1 1 36
Patras, 2 3 2 10
Tangiers, 1 10 3 7
Tetuan, 1 5 3 6
Natal, 1 18 9
Calcutta, 2 3 11
Alexandria, 6 2 12
Rangoon, 3 cs 12
Adelaide, 2 5 18
Melbourne, 3 20 34
Braila, 3 1 37
Antwerp, 10 15
Leghorn, 1 4 6
Cape Town, 2 20
Guayaquil, 1 15 9
Philadelphia, 14 4 355
China Clay—
Baltimore, 1 cocks. 500 bgs.
Barcelona, 10 402
Boston, 3,874
Newport News, 200
New York, 482 t.
Rio de Janeiro, 30 cks
Coal Products
Aniline Colour
Barcelona, 2 kgs.
Genoa, 1 1 cs.
New York, 1 / 11 cks.
Aniline Dye
Barcelona, 3 cs.
Aniline Salt
Boston, 54 cs.
Genoa, 23 brls.
New York, 10 cks.
Piræus, 10
Rotterdam, 40 kgs.
Carbolic Acid
Sydney, 1 t. 2 c. £39
Antwerp, 15 321
Montreal, 5 18
Hamburg, 9 18 614
Iquique, 1 c. 3 q. 17
Rotterdam, 9 16 1 398
Havre, 10 cks. 100 dms 80
Creosote Oil
Newport News, 200 brls.
Pitch
Galatz, 30 brls
Tar
Conakry, 40 kgs.
San Francisco, 247 brls.
Tar Oil
Antwerp, 25 cks.
Copper Sulphate—
Vigo, 5 t. 2 c. 1 q. £240
Talcahuano, 6 10 2 169
Nantes, 11 4 1 264
Stockholm, 19 20
Naples, 5 6 119
Catania, 5 1 2 114
Bahia, 22 lbs. 9 1 12
Alexandria, 1 1 23
Piræus, 4 3 5
Vera Cruz, 1 19 32
Rosario, 2 10 48
Genoa, 10 238
Messina, 3 16 90
Sydney, 13 318
Disinfectants—
Para, 1 t. 2 c. 2 q. £69
Havre, 4 19 58
St. John's, Nfd., 13 5
Oporto, 3 cs. 10
Cape Town, 5 20
Glycerine—
Rotterdam, 23 t. 16 c. 1 q. £980
Toronto, 1 30
Piræus, 1 16 3 93
Montreal, 2 3 92
Quebec, 2 8
New York, 45 17 3 1,217
Barcelona, 1 59
Guano—
Malaga, 19 t. 8 c. £155
Magnesia—
Barcelona, 30 cs.
Genoa, 4
Maranham, 1 ck.
Paris, 40
Vera Cruz 1
Manganese Oxide—
Antwerp, 9 c. £8
Manure—
Bordeaux, 18 t. 16 c. 2 q. £42
Colombo, 25 89
Fremantle, 299 18 510
Piræus, 10 5
Gd. Canary, 33 124
Nitric Acid—
Bahia, 2 c. 2 q. £7
Oxalic Acid—
Lisbon, 1 ck. £6
Paint—
Antofagasta, 12 cs.
Antwerp, 70 kgs. 45 dms.
Barcelona, 4
Bathurst, 200
B. Ayres, 50
Cabenda, 132
Callao, 6 8
Calcutta, 6 cks. 10
Cienfuegos, 5
Curacao 2
Dakar, 9
Fiume, 14
Havana, 160 10
Hong Kong 50
Honolulu, 87
Iquitos, 7
Lagos, 25
Lisbon, 2 cs. 35
Loanda, 20
Manaos, 41 cks. 30
Manila, 7
Maranham, 2
New York, 1 85
Pernambuco, 120 7 cs.
Pt. Said, 16
Secondee, 20
Sierra Leone, 222
Tripoli, 10
Valparaiso, 29
Painters' Colours—
B. Ayres, 114 cks.
Louisville, 100 brls.
M. Video, 17 pks.
New York, 3 cs.
Pernambuco, 5 brls.
Perth, W.A., 3
Sierra Leone, 19 kgs. 2
Paraffin Wax—
Bahia, 10 pks.
Genoa, 6 t. 18 c. / 50 bgs.
Leghorn, 20
Naples, 200
Piræus, 6
Rio de Janeiro, 6 cs.
Tampico, 40
Phosphorus—
Shanghai, 108 cs. £857
Yokohama, 10 75
Phosphorus (Amorph.)—
Hiogo, 10 cs. £1,035
Potash—
Sydney, 1 t. £26
Potassium Bichromate—
Naples, 1 t. £34
Pernambuco, 1 12 c. 62
Smyrna, 3 cks. 45
Potassium Carbonate—
Antwerp, 10 c. £11
New York, 14 t. 3 255
Potassium Chlorate—
Amsterdam, 1 t. £30
Calcutta, 20 kgs 31
Copenhagen, 2 t. 10 c. 77
Gothburg, 19 32
Hamburg, 9 272
Hiogo, 25 774
Kalmar, 2 10 75
Konigsberg, 1 6 43
Montreal, 1 5 38
Naples, 1 30
Penang. 5 7
Rio de Janeiro, 4 18 153
Rotterdam, 1 3 38
Shanghai, 33 1,015
Sydney, 3 10 105
Philadelphia, 5 154
Vera Cruz, 1 10 —
Potassium Prussiate—
Genoa, 1 t. 19 c. 1 q. £137
Potassium Silicate—
Rotterdam, 1 t. 6 c. 1 q. £10
Salammoniac—
Alexandria, 2 t. £66
Trieste, 3 1 c. 3 q. 96
Salt—
Antwerp, 425 t.
Baltimore, 195

Barbadoes, 50
Benin, 16
Black River, 17 3 c.
Boston, 110 300 cs.
Brass, 27
Brisbane, 225
Brunswick, 4[illegible]0
B. Ayres, 63 13 c.
Cameroons, 44
Cape Lahou, 12 10
Conakry, 148 3
Galveston, 300
Ghent, 485
Gd. Bassa, 42 15
Hamburg, 50
Illinois, 20
Isles de Los, 50 4
Kansas City, 50
Kingston, Jam., 8 18
Lagos, 100
Landana, 15
Manaos, 250
M. Video, 8 16
Montreal, 621
Mossel Bay, 25
N. Orleans, 305
Newport News, 201 6
New York, 235
Noqui, 17 17
Para, 571 12
Pensacola, 500
Pt. Natal, 10
Porto Novo, 29 9
Quebec, 138 10
Rio de Janeiro, 17 10
Rio Del Rey, 2[illegible]0
Rosario, 11 12
Rotterdam, 452
Sapeli 32
Sette Cama, 7 6
Sierra Leone, 10
S. St. Paulo, 40
St. John's, N'fd. 30
Stockholm, 10
Trinidad, 42 8
Valparaiso, 2 2

Salt Cake—

Antwerp, 120 t. £150
Baltimore, 80 14 c. 150
New York, 7 3 2 q. 102

Saltpetre—

Hamburg, 5 c. £6
Maranham, 1 t. 53
Pernambuco, 1 8 2 q. 30

Sheep Dip—

B. Ayres, 15 t. 7 c. 1 q. £518
Calcutta, 100 dms. 10
M. Video, 1 15 2 q. 60

Soap—

Acrra, 250 bxs.
Akassa, 10
Alexandria, 84 74 cs.
Algoa Bay, 1,950 6
Ambcina, 200
Antofagasta, 30
Antwerp, 270
Asphodel, 25
Belize, 970
Boston, 25 bls.
Brussels, 1,800
B. Ayres, 14
Burutu, 11
Cabenda, 2
Calcutta, 200 117 230 bdls.
Cameroons, 100
Canaria, 568
C. C. Castle, 200 2
Cape Town, 713 48
Colombo, 20
Conakry, 70
Corinto, 200
Curacao, 175
Demerara, 56 10
Durban, 3,500 5
E. London, 100
Fremantle, 3,000
Galata, 60
Genoa, 50
Ghent. 100
Gibraltar, 700
Gorontalo, 50
Gd. Bassa, 66 5
Guayaquil, 400
Half Jack, 200
Halifax, 600
Hamburg. 21
Iloilo, 20 t.
Iquique, 2
Iquitos, 30
Karachi, 525 bxs.
Kononou, 100
Lahou, 54
Macassar, 650
Malta, 80
Manaos, 400
Mannheim, 4,020
Mauritius, 1,345
Montreal, 2,502
Mossel Bay, 100
Om[illegible]urman, 20
Para, 200 2 20 brls.
Penang, 940
Perth, W.A., 3
Philadelphia, 1
Piræus, 10 1 crt.
Pt. Elizabeth, 2,850
Pt. Said, 24 kgs.
" 20
Progresso, 1
Rangoon, { 480 bxs. / 33
Rotterdam, 100 340
Salt Pond, 200
Savannah, 5
Secondee, 100
Sierra Leone, 300
Singapore, 3,205 50
Stamboul, 10
St. John's, N'fd., 770 603
St. Lucia, 120
Stockholm, 300
Surinam, 200
Taltal, 180 1
Teneriffe, 294
Toronto, 5,001
Trieste, 1,250 7
Trinidad, 2
Wasa, 500

Soda—

Chemulpo, 40 kgs.
Lisbon, 4 cks.

Soda Ash—

Amsterdam, 500 bgs.
Antwerp, 600 7 cks.
Bahia, 40 kgs.
Baltimore, 1,080 bgs.
Barcelona, 100
Bombay, 8
B. Ayres, 211 bls. 414
Brussels, 500 bgs.
Calcutta, 400 75
Callao, 60
Chemulpo, 100 kgs.
Copenhagen, 1,855 bgs.
Ghent, 665
Hiogo, 910
Kingsville, 100
Leghorn, 200
Madras, 20
Montreal, 222 33 tcs. 188
Melbourne, 91
New York, 1,836 97
Philadelphia, 880 82 10
Pt. Natal, 3
Porto Alegre, 20 brls.
Rio de Janeiro, 95 10
Rio G. do Sul, 480
Rotterdam, 1,098 4
San Sebastian, 100 22
Syra, 100
Toronto, 22
Trieste, 100
Winnipeg, 478

Soda Crystals—

Boston, 280 bls.
Halifax, 75 brls.
Malta, 36
M. Video, 25 kgs.
Montreal, { 225 / 640 bgs. } 689 pks
New York, 336 cks.
Rangoon, 7 kgs.
St. John's, N'fd., 120
Vancouver, 250 bgs.

Sodium Acetate—

Vera Cruz, 4 cks.

Sodium Bicarbonate—

Algoa Bay, 10 bgs.
Antwerp, 80 kgs. 6 cks.
Barcelona, 45
Calcutta, 800
Catania, 20
Colombo, 8
E. London, 20
Fremantle, 100
Ghent, 55
Hamburg, 70 11
Havana, 4
Hiogo, 1,120
Honolulu, 30 cs.
Madras, 90
Malta 117 dms
Marseilles, 30
Melbourne, 30
Mexico City, 80 60 bgs.
M. Video, 10 8 cks.
Montreal, { 500 / 15 / 200 dms.
Odessa, 100
Pt. Natal, 13
Rangoon, 100
Rosario, 18 cks.
Rouen, 90
St. John's, N'fd., 50
Sydney, 25
Toronto, 4 cs.
Valencia, 50 5
Valparaiso, 40
Vancouver, 8
Victoria, B. C., 6
Yokohama, 300

Sodium Carbonate—

Amsterdam, 40 bls.
Boston, 50 cs.
Rotterdam. 50 brls.

Sodium Chlorate—

Antwerp, 100 kgs.
Boston, 125 bls.
Gothenburg, 20
Hamburg, 107
Vera Cruz. 1 ck.

Sodium Hyposulphite—

Montreal, 200 kgs.

Sodium Nitrate—

Barcelona, 29 kgs.

Sodium Silicate—

Bilbao, 45 brls.
Mauritius, 10

Sodium Sulphite—

Montreal, 32 brls.

Starch—

Constantinople, 10 cs.
Copenhagen, 5 cks.
Lisbon, 5
Salonica, 25

Sulphur—

Boston, 130 t. 4 c. £554
Gothburg, 95 107
Gothenburg, 100 479
Halifax, 2 11 18
Melbourne, 10 14 2 q. 53
Montreal, 200 2 213
Trinidad, 7 4 33

Superphosphates—

Barcelona, 200 t. £600
Oporto, 14 19 c. 48
Pasages, 207 13 571
Santander, 44 11 114
Teneriffe, 15 50

Tartaric Acid—

Guayaquil, 1 kg. £6

Tin Crystals—

Santos, 5 c. 3 q. £28

Varnish—

Bilbao, 1 cs.
B. Ayres, 14
Cape Town, 11
Iquitos, 2
Oporto, 3
Rio de Janeiro, 2
Rotterdam, 1 ck.

White Lead—

New York, 140 kgs.
Pernambuco, 20 brls.
St. John's, N'fd, 5 cks.

Zinc Chloride—

Bombay, 1 t. 10 c. £30

MANCHESTER.

Week ending November 8th.

Alkali—

Tunis, 15 cks.

Ammonium Carbonate—

Montreal 33 pks.

Bleaching Powder—

Sherbrooke, 263 cks.

Chemicals *(otherwise undescribed)*

Alexandria, 20 cks.
Beyrout, 45 brls.
Germany, 26 tcs.
Jaffa, 15
Montreal, { 90 kgs. / 11 cks. } 20½
Susa, 5
Tunis, 22

Citric Acid—

Beyrout, 1 kg.

Coal Products—

Aniline Oil
Rotterdam 1 dm.
Aniline Salt
Alexandria, 8 cs
Rotterdam. 3 cks.
Carbolic Acid
Rouen. 90 bls.
Naphthol
Hamburg. 12 cks.
Naphthylamine
Germany, 71 cks.
Toluol
Germany, 45 dms.

Colours—

Germany, 6 cks.

Copperas—

Alexandria, 65 brls.
Beyrout, 30
Jaffa, 10

Dyestuffs—

Extract
Antwerp, 13 cks.
Cornwall, 301 pks.
Montreal, 10
Rouen, 5
Toronto, 240

Glue—

Beyrout, 1 kg.
Germany, 6 cks.
Rotterdam, 20

Glycerine—

Beyrout, 4 cs.
Stettin, 20 dms.

Linseed Oil—

Alexandria, 20 brls.
Alexandretta, 6
Beyrout, 5
B. Ayres, 50 dms.
Larnaca, 6

Magnesium Sulphate—

Beyrout, 1 ck.

Paint—

Beyrout, 70 kgs.
Caiffa, 2 cs.
Malta, 1 ck.

Painters' Colours—

Switzerland, 2 cs.

Potash—

Beyrout, 1 cs.

Potassium Bicarbonate—

Alexandria, 6 cks.

Red Lead—

B. Ayres, 2 cks.

Salammoniac—

Bushire, 5 brls.
Sousse, 2 cks.
Tunis, 1

Salt—

Montreal, 5,600 sks.

Soap—

Montreal, 40 bxs.

Soda Ash—

Beyrout, 25 brls.
Jaffa, 65
Lattakia, 50

Soda Crystals—

Alexandria, 75 brls.
Susa, 10 bgs.

Sodium Naphthionate—

France, 54 bgs.
Rotterdam, 15 cks.

Turpentine—

Beyrout, 3 brls.
Jaffa, 1

Varnish—

Gothenburg. 1 cs.

Venetian Red—

Alexandria, 25 brls

White Lead—

B. Ayres, 40 kgs.

GLASGOW.

Week ending November 9th.

Acids—

Bombay, £27

Ammonium Carbonate—

Barcelona, £101
Rotterdam, 14

Ammonium Sulphate—

Baltimore, 51 t. 6 c. 2 q.
Hamburg, 151 17
Mauritius, 77 4 1
Samarang, 133 5
Valencia, 456 16

Borax—

Rotterdam. £62

Castor Oil—

Gothenburg. 1 t. 1 c. 1 q.

Chemicals *(otherwise undescribed)*

Durban, £510

Coal Products—

Aniline Dye
U.S.A., £137
Creosote Oil
Christiania, £40
Creosote Salt
Rotterdam, 101 t. 10 c.
Pitch
Alexandria, £38
Canada, 180

Colombo, 24
Danzig, 305
Hamburg, 10 t.
Madras, 22
Tar
Calcutta, 11 t. 5 c.
Christiania, 8 15
Danzig, £200
Penang, 106
Singapore, 143
Tar and Pitch
Bombay, £27 10s.
Tar Oil
Antwerp, £105
Colours—
Boston, £48 10s.
Canada, 37
Crude Tar Acid—
U.S.A., £13?
Dried Blood—
Natal, £370
Dyestuffs—
Extract
Bergen, 5 c. 2 q.
Canada, £3?
Spain, 60
Sweden, 30
Fustic Extract
Canada, 1 t. 7 c. 2 q
Indigo
Canada. £125
Myrabolam Extract
Spain, £29
Sumach Extract
Belgium, £20
Farina—
Bombay, £120
Calcutta, 123
Gothenburg, 96
Gelatine—
U.S.A., £1,043
Glucose—
Pt. Elizabeth, 4 t. 8 c.
Gypsum—
Jersey, £40
Iron Sulphate—
Bombay, £142
Kurrachee, 40
Lead Acetate—
Bombay, £98
Lead Nitrate—
Antwerp, £20
Canada, 26 t. 11 c. 1 q.
Rotterdam. £20
Linseed Oil—
Alexandria, 16 t. 8 c. 1 q.
Beyrout, 17 3
Mauritius, 1 11 1
Litharge—
Bombay, £40
Rotterdam, 22
Magnesium Sulphate—
Christiania, £35
Manganese—
Antwerp, 11 t. 7 c 1 q
Manure—
Jersey, 451 t. 6 c. 1 q. £60
Oxalic Acid—
Canada, £48
Paint—
Alexandria, £120
B. Ayres, 24
Colombo, 22 12s.
St. John's. N'fd., 30
Painters' Colours—
Calcutta, £48 18s.
Rotterdam, 54
U.S.A., 421
Paraffin Wax—
Bergen, £170
B. Ayres, 186
Penang, 21
Singapore, 27
Potassium Bichromate—
Amsterdam, £13
Antwerp, 2 t. 9 c. 1 q. 16 lb.
Barcelona, 10 9 1
Bombay, £150
Hespeler, 173
Madras, 55
Montreal, 437
Potassium Muriate—
Jersey, £70
Potassium Prussiate—
Canada, £52
Potassium Sulphate—
Jersey, £255
Red Lead—
Alexandria, £36
Antwerp, 42
Sheep Dip—
B. Ayres, £134
Silicate—
Christiania, 6 t. 10 c
Soap—
Bombay, 1 t. 7 c.
Madras, 1 18
Singapore, 1 7
Sodium Bichromate—
Barcelona, £30
Bombay, 2 t. 3 q.
Canada, 3 6 c. 3
Montreal, 1 12
Quebec, 9 3 1
Sodium Cyanide—
U.S.A., £443
Sodium Stannate—
Bombay, 11 c. 2 q.
Varnish—
Rotterdam, £12 10s.
White Lead—
Calcutta, £81
Yellow Prussiate—
Barcelona, £112
Zinc Oxide—
Canada, £23 10s.

HULL.

Week ending November 4th.

Alkali—
Riga, 25 cks
Ammonium Alkali—
Drontheim, 300 bgs.
Ammonium Sulphate—
Leghorn, 100 bgs.
Bleaching Powder—
Gothenburg, 1 bl.
Stettin, 32 cks.
Caustic Soda—
Bergen, 4 pks.
Genoa, 154 dms.
Venice, 200
Chemicals (*otherwise undescribed*)
Abo, 22 cks.
Amsterdam, 55
Antwerp, 1 20 cs.
Bombay, 117 462 brls.
Copenhagen, 37
Genoa, 12 cs.
Gothenburg, 41 18 pks.
Hamburg, 53 127
Karachi, 700 2
New York, 23
Riga 8
Rotterdam, 37 79
St. Petersburg, 60
Stettin, 18
Trieste, 2 10 10 crbys.
Venice, 5
Coal Products—
Creosote
New York, 100 cks.
Pitch
Antwerp, 192 t.
Tar
Christiania, 2 cks.
Rotterdam. 5
Cottonseed Oil—
Amsterdam, 23 t. 3 c.
Antwerp. 5 1
Christiania 7
Copenhagen, 5 3
Drontheim, 2 1
Gothenburg, 4 15
Hamburg, 29 6
Marseilles, 4
Rotterdam, 9 11
Stockholm, 9 18
Dyestuffs (*otherwise undescribed*)
Marseilles, 73 cks.
Linseed Oil—
Amsterdam, 36 t. 1 c.
Antwerp, 1 7
Bergen, 17
Bombay, 44 2
Christiania, 4 14
Christiansand, 1 15
Christiansund, 4 10
Copenhagen, 1 10
Drontheim, 2 3
Hamburg, 30 18
Karachi, 1
Rotterdam, 1 14
Stavanger, 4 7
Venice, 3 12
Manure—
Antwerp, 15 cks.
Dunkirk, 380 bgs.
Leghorn, 120 t.
Marseilles, 64 bgs.
Mineral White—
Dunkirk, 100 bgs.
Painters' Colours—
Amsterdam, 32 cks
Antwerp, 55 44 cs.
Bergen, 2
Bombay, 286 111
Bremen, 20 dms.
Christiania, 3
Copenhagen, 1
Drontheim, 1
Dunkirk, 3
Fiume, 4
Genoa, 12
Ghent, 23
Gothenburg, 1 60 pks.
Hamburg, 36 1
Harlingen, 2
Konigsberg, 4
Leghorn, 23
Libau, 20
Marseilles, 13
New York, 73
Palermo, 1
Reval, 6
Riga, 1
Rotterdam, 41
Stavanger, 2 2 pks.
Stettin, 18
Stockholm, 1 4
Wasa, 63
Salt—
Copenhagen, 5 t.
Soap—
Amsterdam, 250 cs.
Copenhagen, 1
Stockholm, 1
Starch—
Abo, 10 cks.
Tallow—
Amsterdam, 25 cks.
Genoa, 30
Gothenburg, 2
Varnish—
Bari, 1 ck. 1 cs.
Danzig, 7
Hamburg, 1
Stettin, 17
Stockholm, 1

TYNE.

Week ending November 4th.

Alkali—
Christiania, 1 t.
Rotterdam, 5 9 c.
Antimony—
Christiania, 6 c.
Hamburg, 25 t.
Rotterdam, 5
St. Petersburg, 20
Barium—
Rotterdam, 5 t. 7 c. 2 q.
Barium Binoxide—
Genoa, 3 t. 14 c.
Barium Carbonate—
St. Petersburg, 110 t. 19 c.
Bleaching Powder—
Aarhuus, 1 t. 9 c. 3 q.
Christiania, 11 1
Hamburg, 45 4 1
Rotterdam, 5 4
St. Petersburg, 126 12 1
Bone Grease—
Genoa, 17 t. 1 c. 3 q.
Caustic Soda—
Aarhuus, 1 t. 9 c.
Antwerp, 9 17 1 q
Christiania, 7 11
Copenhagen, 7 16 2
Genoa, 23 14
N. Orleans, 84 4 3
Rotterdam, 58 3
St. Petersburg, 45
San Francisco, 14 12 1
China Clay—
San Francisco, 25 t. 3 c. 3 q.
Citric Acid—
St. Petersburg, 15 c.
Coal Products—
Carbolic Acid
Bergen, 2 c. 2 q.
Ergasteria, 4
Creosote
Christiania, 2 t. 2 c. 2 q.
Colours—
Genoa, 1 t. 13 c. 1 q.
Ferro Manganese—
Bilbao, 50 t.
Glue—
Ergasteria, 1 c.
Litharge—
Christiania, 9 c. 3 q.
Genoa, 1 t. 4 2
St. Petersburg, 7 8
Magnesia—
St. Petersburg, 10 c. 2 q.
Magnesium Carbonate—
St. Petersburg, 2 t. 10 c.
Manure—
Genoa. 50 t.
Valencia, 411
Paint—
Antwerp, 5 t.
Bergen, 15 c. 1 q.
Christiania, 1 13
Ergasteria, 8 2
Hamburg, 15 50 dms.
Painters' Colours—
Hamburg, 1 ck.
Phosphorus—
Valencia, 2 t. 12 c. 1 q.
Potassium Prussiate—
Ergasteria, 2 q.
Red Lead—
Christiania, 2 t. 2 c. 3 q.
Copenhagen, 6 8 1
Ergasteria, 5 2
Genoa, 24 19 1
Hamburg, 18 19 2
Odessa, 5 6 1
Soda—
Rotterdam, 29 t. 13 c. 1 q.
Soda Ash—
Bergen, 10 t.
Sodium Prussiate—
St. Petersburg, 10 t. 4 c. 2 q.
Sodium Sulphate—
Goteborg, 702 t.
St. Petersburg, 19 14 c. 3 q.
Tallow—
Genoa, 19 t. 19 c. 3 q.
Hamburg, 2
Varnish—
Ergasteria, 1 c.

GOOLE.

Week ending November 1st.

Chemicals (*otherwise undescribed*)
Antwerp, 10 dms.
Boulogne, 1 ck.
Hamburg, { 25 / 12 crbys. 16
Rotterdam. 6
Coal Products (*otherwise undes.*)—
Amsterdam, 304 cks.
Boulogne, { 56 / 10 pks. 22 dms.
Dunkirk, 2
Rotterdam, 2 cs. 27
Coal Products—
Benzol
Boulogne, 6 cks.
Dyestuffs (*otherwise undescribed*)
Ghent, 7 cks.
Manure—
Antwerp, 176 bgs.
Dunkirk, 506
Painters' Colours—
Boulogne, 9 cks. 1 tin
Hamburg, 1 cs.

GRIMSBY.

Week ending November 4th.

Alkali—
Port au Prince, 159 dms.
Caoutchouc—
Malmo, 2 cs. 1 bl.
Chemicals (*otherwise undescribed*)
Hamburg, 18 dms.
Coal Products (*otherwise undes.*)—
Dieppe, { 1 kg. / 191 cks.
Hamburg, 1 brl
Colours—
Port au Prince, 2 cks. 8 cs.
Manure—
Malmo, 3 cks.
Painters' Colours—
Antwerp, { 1 kg. / 3 cks. 3 cs.
Rotterdam, { 2 kgs. / 2 cks.

PRICES CURRENT.

WEDNESDAY, Nov. 15,

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities ma

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	6/3 & 8/		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	2	6
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	1	3
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¼
,, Muriate .. .. per ton	23	10	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-		
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	10	12	6
,, ,, (grey) Hull .. .. ,,	10	13	9
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	6	0	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	10
,, 50/90 ,, ... ,,	0	0	11
Carbolic Acid (crude 60°) .. .. ,,	0	2	5
,, (crystallised 40°) .. .. .. per lb.	0	0	9
,, (liquid 95/97%) .. .. .. per gallon	0	1	2
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	11	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	3½
Copper .. .. per ton	72	7	6
,, Sulphate .. .. ,,	24	15	0
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	33	10	0
,, (distilled S.G. 1260°) .. .. ,,	51	10	0
Iodine .. .. nett, per oz.	0	7	1½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	18	10	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	23	10	0
,, ,, (brown ,,) .. .. ,,	19	0	0
,, Carbonate (white lead) pure .. .. .. ,,	23	5	0
,, *Nitrate* .. .. ,,	22	0	0

	£
Lime, Acetate (brown) (ex ship) .. .. .. per ton	6
,, ,, (grey) (ex ship) .. .. ,,	9
Magnesium (ribbon and wire) .. .. per oz.	0
,, Chloride (ex ship) .. .. per ton	3
,, Carbonate .. .. per cwt.	1
,, Calcined Magnesia .. .. per ton	13
,, Sulphate (Epsom Salts) .. .. .. per ton	2
Manganese, Sulphate .. .. ,,	14
,, Borate .. .. per cwt.	2
,, Ore, 70% .. .. per ton	3
Methylated Spirit, 61° O.P .. .. per gallon	0
Naphtha (Wood), Solvent .. .. ,,	0
,, ,, Miscible, 60° O.P. .. .. .. ,,	0
Oils:—	
Cotton-seed .. .. per ton	19
Linseed .. .. ,,	25
Stearine .. .. ,,	27
Phosphorus (Yellow) .. .. per lb.	0
,, (red) .. .. ,,	0
Potassium Bichromate .. .. nett ,,	0
,, Carbonate, 90% (ex ship) .. .. .. per ton	18
,, Chlorate .. .. per lb.	0
,, Cyanide, 98 % .. .. ,,	0
,, Hydrate (Caustic Potash) 90 % .. .. per ton	25
,, ,, ,, 75/80 %	21
,, Potash Hydrate Liquid 50 % .. .. .. ,,	13
,, Nitrate (refined) .. .. ,,	20
,, Permanganate .. .. per cwt.	2
,, Prussiate Yellow .. .. per lb.	0
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9
,, Muriate, 80 % ,, ... ,,	9
Silver (metal) .. .. per oz	0
Sodium (metal) .. .. per lb.	0
,, Carb. (refined Soda-ash) 48 % .. nett per ton f.o.r. w'ks.	4
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, f.o.r. w'ks.	4
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, f.o.r. w'ks.	4
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, f.o.r. w'ks.	4
,, ,, (Soda Crystals) .. .. .. ,, ,, f.o.r. w'ks.	2
,, Acetate (ex-ship) .. .. ,,	14
,, Arseniate, 45 % .. .. ,,	13
,, Chlorate .. .. per lb.	0
,, Borate (Borax) .. .. nett per ton	16
,, Bichromate .. .. ,, per lb.	0
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton 10 ton lots	9
,, ,, (74 % Caustic Soda) ,, ,, ,, 10 ton lots	9
,, ,, (70 % Caustic Soda) ,, ,, ,, 10 ton lots	9
,, ,, (60 % Caustic Soda) .. ,, ,, 10 ton lots	8
,, ,, (pure liquor 90° Tw.) .. ,, ,,	4
,, ,, 77/78 % powdered (99 % hydrate) ,,	12
,, Bicarbonate (cwt. kegs) .. .. ,,	6
,, Hyposulphite .. .. ,,	5
,, Manganate, 25 % .. .. ,,	15
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0
,, Nitrite, 98 % .. .. per ton	26
,, Phosphate .. .. ,,	10
,, Prussiate .. .. per lb.	0
,, Silicate (glass) .. .. per ton	4
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3
,, Stannate, 40 % .. .. per cwt.	3
,, Sulphate (Salt-cake) .. .. per ton	1
,, ,, (Glauber's Salts) .. .. .. ,,	1
,, Sulphide (crystals) .. .. ,,	6
,, Sulphite .. .. ,,	5
Strontium Hydrate, 100 % .. .. ,,	9
Sulphocyanide Ammonium, 95% .. .. per lb.	0
,, Barium, 95 % .. .. ,,	0
,, Potassium .. .. ,,	0
Sulphur (Flowers) .. .. per ton	7
,, (Roll Brimstone) .. .. ,,	6
,, Brimstone: Best quality .. .. ,,	4
Superphosphate of Lime (26 %) .. .. ,,	2
Tallow .. .. ,,	28
Tin Crystals .. .. per lb.	0
,, English Ingots .. .. per ton	145
Zinc (Spelter) .. .. ,,	21
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7
,, Sulphate, Crystal .. .. ,,	7

THE

CHEMICAL TRADE JOURNAL

AND

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Articles, reports, and correspondence on all matters of interest to the Chemical and allied industries, home and foreign, are solicited. Correspondents should condense their matter as much as possible, write on one side only of the paper, and in all cases give their names and addresses, not necessarily for publication. Sketches should be sent on separate sheets.

Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

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Advertisements intended for insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

THE HARGREAVES-BIRD PROCESS.

ON Monday last many of those intimately connected with the alkali trade of the district, were invited by the Directors of the General Electrolytic Parent Company, Limited, to inspect their electrolytic process at present working at Farnworth, near Widnes, where the manufacture of chlorine, bleaching powder, soda crystals, soda ash, etc., is being carried out on a large experimental scale, by electrolising common salt or brine.

Up to the present time the company has devoted nearly the whole of its energies to the perfection of the electrolytic cell. Essentially a diaphragm cell, the first step was the preparation of a suitable diaphragm, and we are pleased to find that, after several years of experiment, a material has been found, which though not everlasting, is sufficiently so, and moreover cheap enough to be employed in daily practice. The cell itself is a cast iron vessel, roughly ten feet by five feet, constructed in such a manner that it may be easily taken asunder and the diaphragms replaced, so that when the latter are worn out no serious stoppage of the plant occurs.

All the interest in the process centres in this electrolytic chamber. As the salt is split up in the anode compartment, yielding chlorine gas (which escapes with the excess of brine used), the sodium passes through the diaphragm, and it encounters an atmosphere of carbonic acid gas and water vapour, which decomposing the sodium, liberates hydrogen and forms carbonate of soda. This carbonate of soda is continuously washed off the diaphragm by the condensing steam, and flows out of the cell as an alkaline solution of about 36° Tw. and of great purity. One curious fact concerning the diaphragm is that while it is pervious to sodium during electrolysis, it is almost absolutely impervious to sodium chloride, so that the solution of carbonate of soda is not contaminated thereby; and as there are no foreign salts to eliminate, the manufacture of 58% alkali resolves itself into the mere question of evaporation.

So much for the alkaline side. The chlorine, as such, is conducted either into bleaching powder chambers of the ordinary pattern in which bleaching powder of high strength can readily be made, or it may be employed for the manufacture of hypochlorites or chlorates. In this connection we may mention that Mr. Hargreaves has a process for the manufacture of chlorate of soda that can easily be utilised with this plant. The old method of chlorate of soda making was cumbrous and costly in the extreme, and it is very doubtful whether it can hold its own with the new comer.

The cell, as it is working at Farnworth, decomposes about 2 cwts. of salt per twenty-four hours (say 10 lbs. per hour), and the current used is about 2,300 ampères at 4·7 volts at the dynamo. The process is a continuous one, and goes on without interruption during the life of the diaphragm. This life is stated to average about fifty days; but in all working

accounts it is taken as a life of thirty days only, so as to be entirely within the mark, and as a special feature of any new installation would be a department for the manufacture of these diaphragms, we may take this question as having been solved.

The excellent quality of the soda has already been noted, and we may add that the common salt averages about 1 per cent., and the sulphate and sulphite of soda less than this, so that when it is produced and placed upon the market there need be no fear of its rejection.

We have previously, on several occasions, been privately informed that the parent company was just about to commence operations on a much more extended scale, without any outward or visible sign of such extension following, but as we go to press this week we have information that a site near Middlewich, in Cheshire, has been selected for an installation, equal to about 250 tons of bleaching powder per week, to which all the energies of the parent company will be devoted.

The placing upon the market, yearly, of 12,000 tons of bleaching powder and 21,000 tons of soda crystals or its equivalent in soda-ash is no mean venture, and a large capital will be required to successfully establish the enterprise. But there is one consolation that, owing to the trustworthy character of those connected with the concern, and their excellent business capacity, the project has passed beyond the stage of experiment and doubt, and can be recommended as a certainty so far as human knowledge and foresight can justify the recommendation of anything. In our opinion electrolysis is the coming process for the manufacture of the carbonates of soda, to which all strictly chemical processes must in time give way.

RAISING OR LIFTING WATER BY AIR.

THE first meeting of the thirty-sixth session of the Cleveland Institution of Engineers was held at Middlesbrough last week, Mr George J. Clarkson, the president, in the chair. Mr. Charles Wood, of Middlesbrough and Stockton, read a paper (of which the following is an abstract) on "Raising or Lifting Water by Air."

The author stated that the system of raising or lifting water by air was discovered by Dr. Pohlé, of the United States of America. There is, he said, amongst engineers who have had experience in fixing and working pumping machinery a fascination in fighting against the numerous difficulties which daily crop up in working many classes of pumps that only those who have gone through the experience can thoroughly appreciate. How many days and nights have been spent in trying to find out why a certain pump is failing to do its duty; and how often has a pump been pulled to pieces to examine valves or buckets to find these all in perfect order; and after further trials discover the suction blocked many feet under water, or a small leakage of air in the suction pipe, necessitating further hours of labour in cutting away the nuts from rusty bolts, placed in the most inaccessible places, standing all the time in wet clothes in a dismal atmosphere, with the knowledge at the same time that you are receiving the blessing of those above for keeping the works standing. Many difficulties are met with, but the Pohlé air pump where it can be employed will overcome most of them, and it is simple, durable, easy of use, and economical. The apparatus consists of two plain open-ended pipes, which are let down into the well. The larger of the two has an enlarged end at the bottom, and is the discharge pipe, while the smaller which leads into this enlarged end constitutes the air pipe through which the compressed air is conveyed. These pipes are all put together on the surface of the ground and lowered to the bottom of the well. It is therefore obvious that there is no obstacle to the free movement of the water and the full area of the discharge pipe becomes accessible for the first time in the history of deep well pumping, whilst the dispensing with all valves, buckets, plungers, rods, or other moving parts within the well or pipes commends itself. As the pump has no valves, no standing water remains in the pipe column after the operation of pumping, so the water cannot freeze except under extraordinary circumstances. When working, compressed air somewhat in excess of the pressure due to the head of water outside the discharge pipe in the well is forced through the air pipe into the enlarged or bell-mouthed discharge pipe at the bottom. Hence the air rises by gravitation, and by the inherent expansive force forms alternate layers or pistons of air and water, which in rushing upwards lift or discharge the water layers through the top end of the discharge pipe. Thus the pressure per square inch of the column, made up of air and water inside the discharge pipe, is less than the pressure per square inch outside the pipe. Owing to this difference the water flows continually. The weight of the water outside the discharge, that is the head of the water in the well, is, roughly speaking, one-third greater per square inch than the aggregate air and water sections inside the discharge pipe. The water therefore flows by gravitation from outside to within the discharge pipe. The compressed air will not, if supplied in proper proportions, escape through the water overlying it, nor will the water fall back through the air, whilst both are in an upward motion. The elasticity stored up in the compressed air jamming against the side of the pipe, and against the water, form temporary watertight air pistons, which lift the water above to its final discharge without appreciable loss by leakage or dippage; whilst this compressed air, after having expended its elastic energy in the work of lifting water, is dispelled with only a practically unimportant loss of power. When the bubbles are small, they will pass through the water, and, although the water column will become elongated, they will not exert the positive elevating power which follows when piston-like layers are formed. The author then gave a table showing the elasticity of compressed air. A head of water of 204 ft, he showed, is equal to 88 2 lb. pressure per square inch, or 6 atmospheres, and when the air is compressed equal to this it occupies only one-quarter the volume of its nominal bulk, and in this state it enters the bell-mouth at the bottom of the discharge pipe, and as it ascends it expands in exact proportion as the load becomes lighter, until when these air pistons arrive at the top or discharge, they are of the same density as the atmosphere, and are four times longer than when they are formed at the bottom. The result of this is that as these air pistons rise and elongate, the velocity of the water gradually increases in the same proportion, an example of a most perfect expansion engine. The air lift pump gives 90 per cent. efficiency from the air receiver in the large size pumps, and as a rule 80 per cent. It retains its efficiency without repairs, or until the pipes rust through, whereas the ordinary bucket or plunger pumps gradually lose their efficiency from the first stroke they make, and this rapidly if the water contains sand or is of an acid character. With the air pump, sand or gravel can be thrown up without affecting the working of the pump at all. The capacity of the pump is unlimited, and with a proper proportion of air to the size of the discharge pipe will work efficiently in pipes of a considerable diameter. It is calculated that a discharge pipe 30 in. diameter will deliver 16,660 gallons per minute, or 1,000,000 gallons per hour. An important feature of this air pump is the remarkable effect it has in cooling and aerating the water. When air is compressed the temperature rises considerably. This heat is lost or taken up in the air compressor, in the receiver, and the air pipes leading to the well, until it is again about the same temperature as the atmosphere. When this air is liberated and brought into contact with the water in the discharge pipe it expands in rising, and in so doing it seizes upon the heat in the water and reduces the temperature to such an extent that in some cases it has brought it down from 10 to 12 degs. below its normal temperature in the well, and the water has at the same time taken up about 2 per cent. in aeration, and become sparkling, clean and palatable. The compression may be any distance from the well, and many wells may be worked from the same compressor and under complete control of the engineman; or a compressor may be worked from a water wheel or turbine a mile distant.

Mr. F. Herbert Marshall, of the Tees Ironworks, Middlesbrough, said Mr. Wood deserved the thanks of the institution for opening up new ground, and for illustrating his subject in such a practical way. He thought Mr. Wood would do well to supplement the paper by giving details of the working of the pump. He (the speaker) would like to see some radical improvement on their present pumps which had to take water from the river and got choked up with weeds, &c., two or three times a day. He hardly saw, however, how the air lifting pump could be adapted to raising the water from the river, as at low water there would only be a 12ft. head of water.

Mr. Wood, in reply, said it was the difficulty of raising the water from the Tees for works purposes that led him to consider this question of air lift pumps. As to the diameter of the pipe the pumps had been made with them up to 3 ft. diameter, and there was no slippage. There was no reason why the pump should not work as well with brine as with water.

CHEMICAL TRADE AND THE RESERVISTS' FUND.—The employees of Thomas Hedley and Co., Ltd., City Soap Works, Newcastle-upon-Tyne, have agreed to subscribe amounts varying from 1d. to 6d. a week each to the Reservists' Fund as long as the war continues.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Pipette for Measuring or Decanting Liquids. A. C. Halse. 22,156. November 6.

Manufacture of Calcic Carbide. W. T. Carter and H. A. Couvelas. 22,161. November 6.

Extraction of Metals from Ores and Apparatus therefor. E. B. Parnell. 22,182. November 6.

Manufacture of Patent Fuel. C. Cory and A. E. Tucker. 22,201. Nov. 7.

Treating Lime Sludge from Caustic Soda Manufacture. J. T. A Walker. 22,229. November 7.

Refining and Purifying Linseed and other Oils by Treatment with Oxygen, etc. W. E. Shaw. 22,231. November 7.

Purification and Decolourisation of Saccharine Liquids and Syrups. J. H. Lavollay and G. E. Bourgoin. 22,277. November 7.

Compounds for Use as Antiseptics or Disinfectants. C. Goldschmidt. 22,284. November 7.

Manufacture of Soot or Lamp Black from Tar. G. Wegelin. 22,337. November 8.

Improvements in Chemical, Electrical Excitants. J. Post. 22,384. November 9.

Improved Process for the Production of Ammonia. R. Pearson. 22,403. November 9.

Improvements in the Manufacture of Coke. E. F. Andrews. 22,466. November 10.

Condensed Blood Fibrene Manure. R. Morrison. 22,497. November 10.

Improvements in Processes and Obtaining Carbon suitable for Electrical and other Industrial Purposes and a Superior Quality of Pitch. L. Gaster. 22,554. November 11.

Filter Presses. J. B. Alliott. 22,563. November 11.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Manufacture of Sulphur Trioxide (Sulphuric Anhydride). O. Imray, Birkbeck Chambers, Southampton Buildings, London (communicated by Farbwerke, vormals Meister Lucius & Brüning, Hochst a/ Main, Germany.) Eng. Pat. 285. January 5, 1899.

In the manufacture of sulphur trioxide by the contact process, it is of great importance that the temperature should not become excessive. The patentees, therefore, use currents of cold sulphur dioxide, which can be introduced between the layers of contact material, whereby the temperature is reduced from time to time, as indicated by the thermometers, which are likewise fixed beneath each layer. There is one figure.

Improvements in the Apparatus and Method Employed in the Production of Lead Oxide and the Treatment of Rough Litharge. Matthew's Lancashire Cheshire, and North Wales District White Lead Co., Ltd, S. Pope, and G. V. Barton, all of Old Quay, Runcorn. Eng. Pat, 21,830. October 17, 1898.

This patent is substantially the same as No. 17,178/98, described in this *Journal*, No. 648, p. 257. A current of air and superheated steam is passed over molten lead, and the oxide, which is formed and carried forward by the current, is collected in settling chambers. There are twelve figures. Oxide is obtained from rough litharge by introducing the latter on to the surface of the bath of molten lead, and proceeding as before.

Improvements in Apparatus for Treating and Drying Waste Fish and other Offal. J. F. Johnstone, 7, Union-court, Old Broad-street, London, E.C. Eng. Pat. 25,660. December 5, 1898.

This invention is of a purely mechanical nature. The offal is "cooked" in a horizontal digester, fitted with an agitator. There is an oil outlet at the top, and a charging door. In the bottom there is a large outlet pipe for the pulped solid residue, through which the latter is discharged into the drying pans; and also an inlet pipe for water, by means of which the oil is gradually displaced, and caused to flow out at the top into a collector, and thence to filtering bags. The lower half of the digester is steam-jacketted. There are three figures.

Improvements in Artificial Glue and Size and in Compounds for Use in the Manufacture of Coated or Glazed Papers. T. H. Haynes, 501, Newark-street, Hoboken, N.J., U.S.A. Eng Pat. 2,781. February 7, 1899.

Skimmed milk is fermented at about 170° F., and the liver-like mass cut into small pieces, so as to hydrate the caseine. The liquid is then drawn off, and the solids pressed free from water. Rennet or other acids may be used instead of allowing the lactic acid ferment to develop, but in this case great care is necessary in washing to remove all traces of acid. A portion of the milk must be previously tested for sugar, so that the quantity of bicarbonate of soda and borax, to be added subsequently, may be determined. Generally, 1 to 2 oz. of bicarbonate and 1 to 4 oz. of borax to 8 lbs. of skimmed milk suffices. The hydrated caseine is then kneaded in a baker's trough, with the requisite amount of the alkalies, allowed to rise, and again kneaded until in about two hours a glutinous dough results. This mass is next heated to 170° F. in a jacketted kettle, fitted with agitators, which are kept revolving slowly. By this time the mass will have become liquid, but very frothy, so the temperature is suddenly reduced to 120° F., which checks the frothing. This heating and cooling is continued until the frothing ceases, and a clear milky fluid is obtained. About 6 lbs to the ton of sassafras, or other essential oil, is then well incorporated, and the whole run into barrels to cool, when it sets to a stiff pasty mass If preferred, it can be dried hard on plates. Instructions are given for using this product for tub-sizing, and glazing paper.

Improvements in the Production of a Carbon specially suitable for Use in the Manufacture of Calcium Carbide. F. Schmidt, 49, Kölnische strasse, Cassel, Germany. Eng Pat. 18,263. September 9, 1899.

Coke, charcoal, turf-charcoal, or the like, is converted into a graphitic state by passing carburetted gases through and around them, after they have been raised to a glowing heat in appropriate retorts. The conversion into graphite is not decreased if the carbon be mixed with the proper amount of lime to produce carbide of calcium, as may be done in some cases.

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for Sept., 1899. The total shipments were 92,653,787 gallons, compared with 87,999,604 gallons in 1898. The total for the nine months ending Sept., 1899, were 714,769,191 gallons, against 765,078,044 gallons in the same period of 1898. The details of the shipments are as follows:—

			Gallons.
		CRUDE PETROLEUM.	
Total,	September,	1899	11,825,319
,,	,,	1898	8,476,237
		NAPHTHAS.	
Total,	September,	1899	3,287,854
,,	,,	1898	1,967,928
		ILLUMINATING.	
Total,	September,	1899	71,890,210
,,	,,	1898	70,114,013
		LUBRICATING AND PARAFFIN.	
Total,	September,	1899	5,456,406
,,	,,	1898	5,584,286
		RESIDUUM.	
Total,	September,	1899	193,998
,,	,,	1898	1,857,240

THE ADVANCE IN LUBRICATING OILS.—The Scotch oil companies have this week advised, by circular, important advances in the prices of lubricating oils, which have been raised 20s. per ton. The rise is the outcome of the conference with the American Oil Trust.

LEAD POISONING FATALITY.—A prolonged inquiry, adjourned from Friday last, was held at Swinton this week, into the supposed death from lead poisoning of Robert Band, aged 37, who had worked for the Clifton Chloride Electrical Syndicate. The widow and the Company were legally represented, and Mr. Parkes, Home Office Inspector, attended the inquiry. Dr. Rees said death was due to blood poisoning, caused by an abscess, which was indirectly due to lead poisoning. The firm's doctor had also certified that the man had suffered from lead poisoning. It was elicited that Band had somewhat neglected himself. The Coroner (Mr. Price) said the jury must decide whether or not the actual cause of death was too remote to be linked to lead poisoning. Mr. Parkes said the case had not been reported to the Home Office at all, though it was incumbent on doctors to notify all cases of lead poisoning, however slight, that came under their observation, and circulars had been issued to medical practitioners throughout the United Kingdom explaining that. Dr. Rees said he had not seen any such circular. The jury, after consultation, returned the following verdict: "That death was due to blood poisoning arising from an Ischio-rectal abscess, and that such abscess was set up or induced by the anæmic condition of deceased, caused by lead poisoning."

Selected Correspondence.

THE TRUE PLACE AND FUNCTIONS OF TECHNICAL EDUCATION.

(To the Editor of the Times.)

SIR,—I would venture to add my testimony to the soundness of the views set forth by your contributor of October 9th and of your correspondent of the 25th of the same month on the vexed question of the respective limits of secondary and technical education, and to traverse the conclusions of Professor Wertheimer in your issue of November 2nd. Spite of the dictum of so authoritative and experienced a body as the Secondary Education Commission of 1895, I respectfully submit that secondary does not comprehend technical, except in so far as both are subsequent to primary and follow upon previous preparation. Both primary and secondary imply not instruction, but the training of the faculties combined with the acquisition of the fundamental instruments of knowledge by which further educational advance can alone be secured.

These functions are altogether apart from any question of the future trade or profession of the pupil, and their purpose is best secured and attained in schools and under guidance specially designed to accomplish the healthy development of the mental and moral faculties of the pupil, and to make of him an observing, thinking human being. In my view the assertion of your correspondent is well founded, that the main object of the secondary school is the training and developing of faculty, whilst that of the technical school is the wise direction of that trained and developed faculty to a particular purpose—namely, the mastery of some special craft, business, or profession. This does not imply that the technical school whilst so instructing shall not continue to educate (that it must do, or it will undo the work of the secondary school), or that it shall enter upon a course of empiricism which it is the special function of the technical school to decry and condemn. Nor would this definition of the functions of a technical school exclude from its curriculum such liberal studies as would help the future industrial, commercial, or professional man to rightly understand his responsibilities as an employer and a citizen.

That the course of education in a wisely-managed secondary school will fit a youth to take his place in the world, brave, alert, self-possessed, observant, may be at once conceded, just as a wisely-ordered regimen will promote health and vigour of body; but as the possession of these qualities will not ensure the special conditions under which a boat race shall be won without express training by an experienced coach in all the arts and mysteries of rowing, so in the former case the education of the secondary school is but the condition precedent upon the possession of which it is alone possible to train the pupil in the application of science, or of art, or of economics to the field of labour by which he will live.

Thus differing profoundly from Professor Wertheimer, I trust most earnest representations will be made to those upon whom will devolve the duty of constituting the new Education Office to act upon the suggestion of the able writer who, in your issue of October 9th, so lucidly expounded the true principles upon which it should be established—namely, that there shall be a tripartite division into primary, secondary, and technical (in the strict sense).

This attempted confusion of secondary with technical education is fraught with deep mischief. It interferes with the true functions, and trespasses upon the essential curriculum of the former, at an age when the development of faculty, and not instruction or information beyond the absolute instruments of knowledge, is most needed, and it intrudes upon the latter subjects and grades of instruction which belong to the former stage, and which have neither time nor place in the season devoted to technical training.

As Sir Andrew Noble said the other day, "one of the great abuses is that technical education is often begun too early in life—that is, that it is substituted for a general education, and a boy attempts to put his knowledge to practical use before he has learned how to learn."

It is small wonder, then, that so few of the institutions which have sprung up in the last ten years really deserve the name of technical schools. They are secondary rather than technical, without being truly either. How many of them can be classed with the gymnasia or the *Real Schulen* of Germany, and where are those (I do not say there are none) which are the analogues of the technical high schools, or the *Fach Schulen*, or the *Gewerbe-Schulen*, of Germany or Switzerland?

It is the well-ordered secondary school system which has made the technological institutions of Germany possible, the fruits of which are to be seen in the pre-eminence she enjoys in the chemical industries, and which have made her so great a potential commercial rival, just as the admirable high schools of the United States have made possible her splendid engineering colleges, which, in their turn, bid fair to place her engineering industries in dangerous rivalry with our own.

I make bold to say that every technical school in this country which is really a technical school is suffering because there is not a sufficient *supply of properly* prepared pupils coming from the secondary schools, *and that no confounding of secondary with* technical instruction in the same institution will cure the evil, or should be accepted as a statesmanlike or intelligent solution. Our immediate business should be to organise at once our secondary education on broad, general, and truly educational and non-specialised lines in institutions known as secondary schools. Until we do so there will be little technical education for the leaders of our commerce and industry in this country worth the name, or which will need to trouble the serenity of the far-seeing men who have brought by their wise measures Germany and Switzerland into the front rank of industrial and commercial nations.—I am, etc.,

J. H. REYNOLDS,
Director of Technical Instruction for the City of Manchester.
Manchester Technical School, Manchester.

WATER GAS AND THE SMOKE NUISANCE.

(To the Editor of the Manchester Guardian.)

SIR,—In the first Hurter Memorial Lecture delivered at Liverpool on October 4th, by Dr. G. Lunge, of Zurich (*C. T. J.*, No. 646, p. 229), the learned Professor makes some very interesting remarks on the improvements in the manufacture of water gas within the last two years. He states that whereas the old processes of manufacture only utilised 45 per cent. of the fuel employed, by the new Dellwik-Fleischer process 82 per cent. of the fuel is utilised. This means, of course, a very great reduction in the cost of producing water gas. The Professor sums up the result as follows: "Through the Dellwik process we are now in possession of a method for obtaining, at a very low cost, a concentrated gaseous fuel of from three to four times the caloric power of Siemens gas, capable of being conducted over great distances in pipes of moderate dimensions, and, although of much less caloric power than ordinary coal gas, possessing several advantages over this of the greatest importance—in the first place, that of incomparably less cost." This will be welcome news to all who are looking earnestly for a cheaper gas for heating purposes in order to improve the atmosphere of our towns. The use of gas in place of coal seems likely to do more than anything else towards reducing the smoke which so spoils the appearance of our cities, besides interfering so much with cleanliness and health. The worst thing about the smoke is that it makes people afraid to open their windows, so that the atmosphere of the house is always unhealthy. But it also makes the fogs much more frequent and more dense than they otherwise would be, as well as far more irritating to the lungs. No one can estimate what a boon it would be to Manchester to get rid of the domestic smoke. It is a thing which every voter ought constantly to bear in mind. I have no doubt that our Gas Committee and their engineers have had this question of the cheaper water gas before them. Public opinion, I trust, will be ready to back them up in any well-considered plan for giving us a cheaper gas for heating purposes.—I am, etc.,

N. V.

ALKALINE DEPOSITS IN WYOMING.

(To the Editor of the Engineering and Mining Journal.)

SIR,—In 1895 the Green River Fuel and Oil Co., of Green River—a division point on the Union Pacific Railroad, 800 miles west of Omaha—in drilling a well for either gas or oil, encountered an alkaline water which caused a stoppage of operations. Some months later this water was analysed, proving it to be charged with a high percentage of sodium carbonate, instead of sodium sulphate as is generally the case in alkaline waters in the West. The importance of this discovery was not appreciated by the owners of the property, neither did they possess the means to take advantage of this freak of nature. Later numerous analyses of the water were made, all of which show a remarkable uniformity—in fact, there appears to be no variation in any particular in the four years the well has been flowing, except as the temperature of the water has changed with the seasons. Except sodium chloride there are only traces of other solids to be found in the water. The lesser solubility of salt compared with sodium carbonate admits of its precipitation cheaply and the subsequent recovery of the sodium carbonate may be obtained at a cost of possibly not to exceed 1 dol. per ton, for a dry product that will show 60 per cent. actual alkali.

A recent analysis, or test, of the water, by Herman Harms, of Salt Lake City, in no essential differs from others made in past four years, and shows: Colour of water, bluish tint; odour, very slight; clearness, bright; sediment, very slight; gravity, 13·5 per cent. at 59° F., corresponding to 25·43 per cent. solids—crystallised carbonate.

One litre contains of crystallised sodium carbonate, 246·20 gr.; of sodium chloride, 6·12 gr., and traces of sulphate of lime and potash. Practically speaking, one gallon of this water contains 2·05 lbs. crystallised sodium carbonate and 0·05 lb. sodium chloride.

This unique flow of alkaline water has not yet been turned to a commercial proposition, though plans to that end are now being formed. Its economic importance can be readily appreciated by any well-informed industrial chemist. Coal for steam or evaporating purposes is to be had from Rock Springs—15 miles distant—for 75 c. per ton, delivered at Green River. Lime rock, necessary in the production of caustic soda, is found within seven miles of this well. L.

Rock Springs, Wyo.

A COMPARISON OF LUBRICATING OILS.

THE characteristics of a good lubricant are not altogether easily defined, and it is not too much to say that few of those who have the lubrication of an engine to attend to, thoroughly understand their work. The popular idea of lubricating the parts of any mechanism is to drop a sufficient quantity of oil into the openings provided for the purpose, and the engine will run smoothly. This is by no means the only function of the lubricant, as there is much waste of power caused by imperfect lubrication. Therefore, the choice of a lubricant suitable for its special purpose and the manner in which it is used, becomes more than a rule-of-thumb affair—it becomes a study. It is a generally accepted principle that the viscosity of the lubricant should be in proportion to the pressure sustained—that is, the lubricant should be just sufficiently viscous to keep the moving surfaces apart. This, of course, involves a differentiation in the constituency of the lubricant according to circumstances, or proportionately to the pressures involved. A slight variation in the composition of the oils, a foreign ingredient, will, therefore, naturally considerably affect the efficiency of the lubricating power. Professor Thurston, in his work on "Friction and Lost Work in Machinery and Millwork," laid down the following characteristics of an efficient lubricant:—(1) Enough "body" or combined capillarity and viscosity to keep the surfaces, between which it is interposed, from coming in contact under maximum pressure. (2) The greatest fluidity consistent with the preceding requirement, *i.e.*, the least fluid friction allowable. (3) The lowest possible coefficient of friction under the conditions of actual use, *i.e.*, the sum of the components, solid and fluid friction, should be a minimum. (4) A maximum capacity for receiving, storing, transmitting, and carrying away heat. (5) Freedom from tendency to decompose, or to change in composition or otherwise, on exposure to the air, or while in use. (6) Entire absence of acid or other properties liable to produce injury of materials or metals with which they may be brought in contact. (7) A high temperature of vaporisation, and a low temperature of solidification. (8) Special adaptation to the conditions as to speed and pressure of rubbing surfaces under which the unguent is to be used. (9) Freedom from grit and all foreign matter.

With the exception of items 1, 2, and 8, these conditions apply more to the manufacture of the lubricant, perhaps, than to its application. In regard to the first and second, it will be seen that the discrimination and knowledge of the user is called into service to a large extent; in fact, these two points, in conjunction with that expressed in No. 8, will prove the ability and scientific knowledge of the user. There is a wide diversity in the qualities of the oils lying between the two first desiderata; and it is more than probable that the exact suitability of the lubricant to its special duties is never gauged. What this means to a machine, to the resultant work, and to the economic conditions of production has already been pointed out. It was once thought that the specific gravity of an oil was the best test of its lubricating efficiency. Now it is recognised that the viscosity is the chief determining factor. The American oil is, perhaps, preferable for lubricating purposes to the Russian oil. A comparison of lubricating oils from different countries follows:—

	Specific gravity.	Flash Point ° C.	Burning Point ° C.	Viscosity. 30°	50°	70°	100°
AMERICAN—							
For machinery..	·920	206	245	8 90	4 23	—	1 65
,, spindles ..	·908	200	240	6 46	3 32	—	1·61
,, steam engine cylinders..	·886	283	330	—	—	—	4·17
,, steam engine cylinders..	·899	280	344	—	—	—	4 82
RUSSIAN—							
For machinery, locos., etc.	·920	185	212	—	13 84	—	2·42
,, spindles ..	·895	163	190	—	3·40	—	1 53
,, steam engine cylinders..	·911	218	267	—	10 44	5 67	2·15
	·923	208	235	—	—	8 26	2·88
,, general purposes ..	·908	138	170	—	8·44	—	2·05
GERMANY—							
For machinery, transmission gear, etc. ..	·928	155	193	—	15·48	—	2·69
,, general lubricating purposes	·921	152	195	—	4·55	—	1·60
	·994	135	168	—	3·17	—	1·40
	60° F.	Close.	Open.			70° F.	140° F.
BURMA—							
Lubricating oil	·920	238	266	—	—	34·23	9·24
	·931	336	360	—	—	124·02	15·71

From these data may be judged the various qualities of the lubricating oils produced and used in different countries. Special conditions are laid down in regard to the quality of the lubricant for use on the principal German railways. On the Royal Prussian railways the specific gravity of the oil at 20 deg. C. must lie between 900 and ·925; the flash point must be 160 deg. C. The oil must be of two different descriptions, known as "winter" and "summer." The former must remain fluid at 15 deg. C., and the latter at 5 deg. C. It must be free from water and acid, have only a slight smell, and completely dissolve in petroleum benzine having a specific gravity of 67 to ·70. Foreign substances, or a sediment, even after long standing, are not permitted, and it must not resinify or dry to a varnish stratum on long exposure to the action of the air; and the addition of mineral oils, or distillation products thereof, to rape oil is strictly prohibited in the districts of Altona and Berlin.

The restrictions placed on the supply of lubricating oil to the Baden State Railway include that the mineral lubricating oil must be prepared only from petroleum, and must not contain any other description of oil of vegetable or animal origin. A very small proportion of solid hydrocarbons is permissible, and the oil must be quite free from gum-like impurities. The colour must not be too dark, and the oil must be transparent in thin layers; the presence of solid matter, and any sedimentation after prolonged standing, are disallowed. At 15 deg. C. the specific gravity must lie between ·890 and ·940. On distillation not more than 10 per cent. by volume should come over below 300 deg. C., and not more than 7 per cent. by volume must remain of undistillable residue. The flash point must not be below 160 deg. C., nor the burning point below 190 deg. C. Viscosity must be equal to that of rape oil at temperatures up to 50 deg. C.; at 5 deg. C. the oil must be fluid, and not exhibit any separation of solid matter. Different regulations are laid down for the lubricant to be used on the Bavarian State Railways. The oil must be odourless and free from tar, tar oil, &c.; specific gravity varying between ·910 and ·920; flash point, 190 deg., with a margin of 10 deg. either way; viscosity at 50 deg. C. of 230 to 330, taking rape oil at 100. The viscosity must diminish slowly between 20 deg. C. and 150 deg. C., and the viscosity of summer oil must be relatively higher, and the winter relatively lower, between these figures. These instances exhibit pretty well the great care that is taken in choosing a lubricant for railway purposes. But the choice of an efficient lubricant is not the whole process. Its wise and judicious application is as of great importance as its choice, and unless the different duties of various parts of a machine or an engine are carefully and scientifically studied, the best lubricant will be wasted, and its inherent efficiency made of no avail.—*The Engineer.*

TANNERS AND RIVER POLLUTION.

TWO informations against Messrs. Stannard and Company, tanners, Brookside Tannery, Timperley, brought by the Bucklow Rural District Council, for suffering matter to go into the authority's sewer by which the flow of sewage was interfered with, were heard at the Altrincham Petty Sessions this week. Mr. Rhodes prosecuted on behalf of the Rural District Council, and Mr. G. L. Welford appeared for the defendants. Mr. Rhodes, in his opening, said that in 1896 a complaint was made to Messrs. Ambler and Company, who then occupied the tannery, of solid matter being turned into the sewer and they took steps to remedy the matter. In 1898, Messrs. Ambler sold the works to Messrs. Stannard, and since then they had made alterations which trebled their size. These alterations were at first commenced without plans being submitted, but afterwards this was done, and there was no connection shown with the authority's sewer, but that there was a drain running into a settling tank, the clear effluent going from this settling tank into Timperley Brook. Owing to a complaint made by the Ashton-on-Mersey Urban District Council, the Bucklow Rural Council served Messrs. Stannard and Company with notice to cease to pollute the brook, and they replied that they were taking steps to prevent any nuisance, but instead of doing so, they had since turned the whole of their refuse into the sewer, amounting to 30,000 or 40,000 gallons per day. Up to March, 1889, the effluent from this sewer was reported to the Mersey and Irwell Joint Committee, a most stringent authority, by their own inspector, as good. Samples had since been taken by the Bucklow Rural District Council, and the report of the analysis by Dr. Carter Bell, the county analyst, was that it was a bad and putrid effluent, and ought not to be allowed to enter the authority's sewer.

A body of evidence was called, and the defence practically amounted to this—that the nuisance was caused by the large increase in the number of houses in the district, and other things, than altogether by the matter from the defendants' works.

The Bench inflicted a fine of 20s., and costs £20., and a further penalty of 10s. per day was to accrue if the nuisance was not abated in three months.

Reports of Companies.

RUSSIAN PETROLEUM AND LIQUID FUEL, LTD.

The directors' report for the year ended September 12th last states, owing to the absence of any large fountains, the period under review cannot compare in point of production with that of the previous ten months. Good progress has, however, been made with fresh borings, and the weekly pumping production has been satisfactory, while Well No. 30 has been consistently productive as a flowing well throughout the year. The gross production from the wells for the year was 28,884,351 poods, and, deducting the oil used as fuel, adding the stock at September 12, 1898, and deducting the stock at September 12, 1899, the production disposed of was 28,116,896 poods, realising 2,871,781 roubles. The average price obtained for crude and Lake Astatki, including deliveries to the refinery, was therefore 10·21 copecks per pood. The Astatki from refining realised an average price of 12·86 copecks per pood. The year under review, partly owing to the destruction of the stocks of crude oil by fire in August, 1898, began with a large balance of forward sales undelivered at an average price of 8·90 copecks per pood, and this necessarily affected the average price obtained during the current year. The amount of net profit for the year is £204,349, to which must be added the amount brought forward on last year's account, £113,513, making a total available for appropriation of £317,862. From this sum must be deducted the dividend on ordinary shares at 15 per cent. per annum and the dividend on preference shares, paid April 26 last, leaving a balance on profit and loss account of £264,112. After providing for the balance of dividend due on the preference shares for the year and the amount to be placed to credit of preference shareholders' reserve fund, there is an amount now available for distribution of £232,508. The directors recommend a further dividend on the ordinary shares of 25 per cent. per annum for the six months to September 12, 1899 (making, with the interim dividend of 15 per cent. paid in April, a total distribution for the year of 20 per cent.), transferring to a general reserve fund the sum of £100,000, and carrying forward £70,008. The purchase of a new refinery and other additions and alterations to the company's property have involved a very considerable outlay in excess of the normal expenses of boring and working at the wells. The renovation of wells and derricks consequent on the fire has been completed, and the entire property got into thorough order. A new water service, connections for steam supply, new workmen's houses, new boiler house, two pump houses, a new storage, mechanics' shop, loading pier and pipe lines, have all been constructed during the year. The demolition of the old refinery at Bibi Eibat rendered it necessary for the company to acquire another in its place, and ultimately the board were able to purchase the refinery formerly belonging to Mr. Boudagoff, at Blacktown, with land and storage adjoining, at a cost of £52,500. The new refinery is capable of treating 15,000,000 poods of crude oil per annum, and work was commenced there on December 22, 1898. During the financial year the prices of naphtha and its products have been steadily increasing. The board have to report that his Majesty the Emperor, on May 1, 1899, was pleased to grant to the company the permission to carry on the exploitation for naphtha on Government lands of the Trans-Caucasian district, and to acquire plots for the production of same, and the company also received permission to attend certain auctions that take place for the lease of Government lands on the Apscheron Peninsula for the working of naphtha. The board desire to again place on record their appreciation of these further facilities which have been accorded to the company by the authorities in Russia.

VOLENITE, LIMITED.

The directors, in their report for the period ended June 30 last, state that immediately upon the formation of the company, the directors took steps to obtain a site for erection of the necessary works and plant, and were fortunate in being able to acquire premises at Alperton, near London, lying alongside the Grand Junction Canal, and the Ealing and South Harrow Railway, and close to the Sudbury Station of the London and North-Western Railway, which appeared suitable in every way. Upon these premises the various buildings and plant, specially designed for

THE MANUFACTURE OF VOLENITE,

have been erected and set up; but, owing to the engineering strike, by which so many industries in the United Kingdom were affected, and the unforeseen difficulties in connection with the foundations of the buildings, the work was not completed until considerably after the time originally contemplated. The directors, however, are pleased to report that the works, as contracted for, are now complete, and that the material manufactured by the company is much superior to the article first produced, and on the faith of which the company was formed. Agencies have been arranged for in several parts of the United Kingdom, and the company is now actively at work. The orders already in hand are of considerable extent, and largely exceed what might have been anticipated at so early a stage. To enable the directors to undertake the business, additional plant has become necessary, and this is now in course of delivery and erection. Provision had to be made for the extra cost thereof, but for the time being the directors have been able to arrange for this extra expenditure without calling upon the shareholders. The company having been registered in England, the general meeting would, in the ordinary course of events, be held in London; but, as such a large majority of the shareholders reside in Ireland, the directors have thought the request made to them by several members to hold the present meeting in Dublin not unreasonable under the circumstances.

AGRICULTURAL EDUCATION IN BELGIUM.

REFERRING to the possibility of teaching the elements of practical agriculture in our elementary schools, Mr. J. C. Buckmaster, of Hampton Wick, says:—"I once saw, either in Belgium or France, a rural school which I thought with some modification might often be substituted with advantage in some of our rural parishes. Connected with school, and adjoining the playground, was a piece of land divided into a number of small plots. These were numbered and cultivated by the boys under the direction of the teacher, who held a diploma from some central agricultural society. On each plot the name and age of the boy was written, the analysis, weight, and kind of manure employed, and the crop grown. Around the schoolroom were specimens of colza, onions, swedes, beans, and other things grown the year before. In cases with glass fronts were sections of the surface soil and subsoil in parts of the district, to the depth of 4 ft., showing the rootlets of shallow and deep-rooted plants. Every year a kind of agricultural show was held confined to the work of the school. On long tables were arranged the various exhibits, on two other tables were exhibited specimens of useful and injurious insects and plants with their names, where found, and a description of their uses and habits. It was a parish holiday. The mayor or prefect and village *curè*, with the children, parents, friends, and visitors, walked in procession through the village to the school. They sang songs, the mayor distributed the prizes—a bank-book, with so many francs, to the credit of the boy—when they all sat down to good coffee and a thin wine entertainment. The exhibits of the previous year were removed from the school and replaced by those of the present year. No one got drunk; they all enjoyed themselves and returned home with the hope of another year. I compared this with what I had seen at village feasts in my native country. I do not know if anyone is to blame for the ignorance of others. I have been to farmers' clubs and dinners and shows, and heard with much unhappiness talk about the malt-tax protection, reciprocity, fair trade, bimetallism, local taxation, and the Hessian fly, but I have seldom heard landlords urge the necessity of a better scientific education of their sons if they are to be farmers. I think I ought to mention that the late Lord Dalhousie, the Earl of Aberdeen, Lord Lonsdale, the Earl of Ancaster, and others have taken a warm interest in the subject, by whom in years past I have been encouraged to go on."

THE INDIGO MARKET.—Millward and Co. report that the first auction of the Calcutta season was held on the 16th. Only about 100 chests of Oudes and Benares were offered, of which a few were sold to Japanese and Suez buyers at from 1/- to 1/2 advance upon London July rates, the remainder being withdrawn, planters holding for higher figures than are at present obtainable. The new season's indigo is coming to hand in Calcutta very slowly, and it is not expected that the auctions will be of any great importance until the second half of December. An active trade continues to be done in London at steadily advancing prices, but stocks are now reduced to 8,000 chests.

PURE CHEMICALS.—We have just received the September price-list issued by Messrs. F. Kendall and Son, of Stratford-on-Avon, who manufacture the following reagents in their own laboratories, each preparation bearing the name of the person responsible for its production. The present list is divided into the following sections:—(*a*) pure organic preparations for scientific research, and for educational and special manufacturing purposes; (*b*) inorganic preparations (metallic salts of organic acids and cyanogen compounds are included in the organic list), appendix—compounds of the rare earths; (*c*) standard solutions of guaranteed strength and accuracy; (*d*) substances for qualitative and quantitative analysis, in sealed and numbered tubes; (*e*) microscopical reagents, nutrient solutions for botanical work, etc. Packages, except bottles, tubes, etc., allowed for if returned in good condition within one month, carriage paid. Inflammable and corrosive materials are sent subject to the regulations of the respective railway companies and carriers for the time being. We commend this list to all analysts and technical chemists.

PERMANGANATE PROCESS OF GOLD RECOVERY.

THE permanganate process for the extraction of gold from complex or refractory ores is as yet little known in America, but is attracting some attention in the Australasian colonies, especially in New Zealand. It was originally devised by M. Etard in France, but has been taken up and modified by Prof. Black of the University of Otago, in New Zealand, a metallurgist of considerable authority in that colony. It is a leaching process, in which chlorine is the solvent for the gold, the permanganate of potash being the active or exciting agent in the necessary chemical reactions. In the original process M. Etard used a solution containing about 20 lbs. of strong commercial muriatic acid (or hydrochloric acid) and 5½ oz. of permanganate of potash in 100 gals. of water. In New Zealand, in order to lessen the cost, Professor Black uses a solution of 12 lbs. of common salt, 14 lbs. of strong sulphuric acid and 6 to 7 oz. of permanganate crystals to 100 gals. of water.

In the leaching process the chlorine in the salt is liberated, the products resulting from the reaction being bisulphate of potash, bisulphate of soda, sesqui-oxide of manganese, water, and trichloride of gold. Professor Black claims that little or no free chlorine is generated, but that the gold unites directly with the chlorine from the salt. The permanganate furnishes the oxygen, which unites with the sodium of the salt, leaving the chlorine to act upon the gold, the sulphuric acid taking up the soda and potash formed.

The estimated cost of the chemicals used, at Australian prices, is from 1 dol. to 1 dol. 50 c. a ton of ore, and gold extraction of 90 to 96 per cent. is claimed. The leaching is conducted in vats, preferably of wood, but they must be lined with lead, or the wood carefully covered with paraffin to protect it against action by the acids used. The experiments thus far conducted have been on ores from the Monowai and other mines in New Zealand, and from the Mount Morgan Mine in Queensland; but it is to be observed that all these trials have been on small parcels, and that the process has nowhere been tried on a working or commercial scale.

The gold chloride is precipitated from the solution in vats by adding a strong solution of ferrous sulphate; by passing a current of sulphurous acid through the vat, or by filtering through charcoal. In any case the precipitate is treated by the usual methods.

The process has its limitations, as stated by the inventors. It does not recover the silver, though it is claimed that the ore is left in such condition that any silver carried can easily be saved by a further leaching with hyposulphite of lime, providing from three to five per cent. of salt has been mixed with the ore in roasting. It can be used only on ores free from iron pyrites or other sulphides or arsenides. A necessary preliminary to the leaching is therefore a thorough roasting in a reverberatory furnace, in which no fuel can come into direct contact with the ore. The roast must be a dead or absolute one, removing all the sulphur; while arsenic, or antimony, if present, must be also entirely eliminated. In this fact, and in the use of salt are found two strong objections to the process We all know the practical difficulties in the way of obtaining a dead or absolute roast. Practically, and on a large scale, it is impossible to secure the perfect calcination, and the expense of the process is necessarily great. If salt is used in roasting, also, there will always be some loss of the precious metals by volatilisation. These objections alone, it would seem, are enough to prevent any general adoption of the process.

While Professor Black is, doubtless, acting entirely in good faith in presenting the claims of this process, it seems to us that there are other substantial objections to its use besides those mentioned above. The first, and perhaps the most important of these, is the extreme delicacy of the process and the extent to which its operation can be interfered with or prevented altogether by substances of common occurrence, such as iron pyrites, magnetic oxide of iron, and the like

Even where this process is successfuly applied, the extraction claimed is not as high as in ordinary chlorination, which does not require a dead roast, and which is a much simpler and less delicate process. Nor is the extraction any greater than can be obtained by cyaniding the ore, when that method is used with equal care and precaution.

Apart from the cost of the roasting, the expense for the chemicals used in treating ore by the permanganate process is higher than the similar cost in cyaniding, or even in barrel chlorination. On Mount Morgan ore, for instance, of which Professor Black makes especial mention, the cost of treatment would certainly be much greater than it is by the chlorination method at present used at the mine

It must also be remembered that the laboratory tests so far made, upon which the claims of the process are based, are not a fair measure of what its value would be in practice. It is well known that when a new process is tried in the mill on a working scale, some difficulties always arise which have not been anticipated. This will be the case with the process we are considering, although its inventors seem to have studied out its application with unusual care.

Upon the whole it would not seem that the permanganate process has any extensive future before it, though some local applications may be made in Australia.—*Engineering and Mining Journal.*

SOCIETY OF CHEMICAL INDUSTRY

SCOTTISH SECTION.

THE second meeting of the new session was held on Tuesday, Nov. 21st, in the Religious Institution Building, 200, Buchanan-street, Glasgow. The chairman of the section (Prof. G G. Henderson) presided. The main business on the paper was a dissertation on the "Recovery of Nitrogen in Coal Distillation," prepared, in collaboration, by Mr. W. Carrick Anderson, M.A., D.Sc., Assistant in Chemistry, Glasgow University, and Mr Jas Roberts. This set forth the results of a long series of examinations into the chemical constituents of coal, being, in a sense, a continuation of work within the same field which formerly formed the subject of papers read before the Society, and now having a place in the Society's Journal. These investigations are not even now exhausted, and in the course of the reading it was intimated that the authors would very probably be ready, some time in the not very distant future, with a more advanced account of the researches, which are still in progress. The minerals operated upon have been selected from coal beds of different characteristics, these not being confined to one country—Scotland, England, and also the Continent having been drawn upon for the varying samples required. The paper began by saying that our present supplies of nitrogenous chemicals are derived (1) from the gasworks of the country; (2) from the distillation of shale; (3) from blast furnace operations, and (4) from coke ovens. The yield from the second and third of these sources was not likely to come in for any considerable *pro ratâ* increase. The gasworks of the country were by far the most prolific of the three sources of the supply, and on a calculation of production, it might be said that out of every 20 tons of ammonia yielded from all the four, just about 13 tons was the quantity to be put to the credit of the coal gas manufacturer. The paper, which in length attains to about one hour of rather rapid reading, is largely analytical, and here, therefore, it is possible to give the outlines only of the authors' treatment—thus: Amount of nitrogen in coals; influence of temperature; distribution of nitrogen on ignition, and causes which act in this distribution; fixed nitrogen in coke and effect of re-agents; nitrogen set free on ignition, and effect of temperature; causes influencing the yield of ammonia in gas retorts and coke ovens; ammonia recovery in blast furnaces.

The meeting was well attended by those interested in this branch of chemical industry, and included some non-members.

Trade Notes.

THE SALT TRADE: HIGHER PRICES —The official returns recently issued show that during October the salt trade was greatly depressed. The exports and coastwise shipments of all the salt producing districts of the United Kingdom amounted to 64,841 tons, or 6,624 less than during the corresponding month of 1898 Unfortuuately for Cheshire, the depression has not been distributed over the country, so that, while other districts have enjoyed a measure of prosperity, the Cheshire trade has borne more than double its share of the loss. Thus Liverpool alone shows a falling off of 12,762 tons on exports and coastwise, exports alone being 14,076 tons less than last year. Runcorn, Weston, and the Manchester Ship Canal have had a reduced trade of 1,358 tons. Taking the ten months of the year, 847,260 tons have been dealt with from all parts, this quantity being a reduction of 18,666 tons on the same ten months of 1898. It was stated at a meeting of the British Salt Association in Liverpool this week that all the manufacturers in England, with the exception of the Barrow Salt Company, had joined the association, and deposited money to remain firm to its objects until the end of next year. The prices of salt are now higher than at any other time during the past quarter of a century.

EGYPTIAN SALT AND SODA CO, LTD.—We learn that letters of allotment in the Egyptian Salt and Soda Company, Limited, have been posted.

WAGES IN THE COAL TRADE. - There is every probability of a further wages advance being conceded to miners in the federated area by the conciliation board, which will meet the week after next. That employers are anticipating this is evident from the upward move in the price of coal, many manufacturers' contracts covering the greater part of next year having been booked within the last few days at a shilling per ton above present prices. Trade continues exceptionally brisk, and so far as can be foreseen is likely to be maintained at least during next year. The war has made little or no difference, except to the Welsh coal trade, overtime being worked. Lancashire and the other counties were never more free from disputes than at present. Claims under the Workmen's Compensation Act are engaging much of the miners' agents time and attention.

YORKSHIRE COLLEGE.—We nave received a very tastefully got up handbook of the Textile, Dyeing and Art Departments of this College at Leeds, which ably describes the practical and educational facilities afforded by the College. It is profusely illustrated. Owing to the importance of the work done at the College we shall devote an article in our forthcoming *Special Issue* to its influence as a centre of technical and specialised education.

AMERICAN SODA ASH PLANT.—The Columbia Chemical Company, recently organised by Pittsburg glass people, will erect a large soda ash plant at Barberton, O. The steel work of the buildings will be erected by the Ritter-Conley Manufacturing Company, of Pittsburg, Pa., to cost about £20,000. There will be four buildings of brick, steel, and stone; the main one will be 460 feet long by 120 feet wide and 40 feet high, and an adjoining structure will be 200 feet long by 40 feet wide and 30 feet high. The annual production is to be 240,000 tons of soda ash.

CASTNER-KELLNER ALKALI CO., LTD.—Last week this company made an issue of £150,000. 4½ per cent. first mortgage debenture stock, at the price of 102 per cent. The debenture stock will be secured by a specific first mortgage to the trustees for the debenture stockholders of the whole of the freehold land, works, and buildings of the company, and by a first floating charge on all the other property and assets, present and future of the company. The company reserves the right to issue a further sum of £50,000., to rank *pari passu* with the present issue, but this power is not to be exercised unless the company shall have acquired additional property, and then only to the extent of 66 per cent. of the cost price of such additional property, which shall be duly mortgaged to the trustees. The debenture stock will be redeemable at £107. per cent., at the option of the company, at any time after the 1st January, 1915, upon the company giving six calendar months' notice in writing.

COMMERCIAL EDUCATION IN BIRMINGHAM.—At a meeting of the Birmingham Chamber of Commerce this week it was reported that negotiations had been proceeding with the authorities of Mason College and King Edward's Foundation relative to the provision of remodelled system of commercial education in the city. It was expected that the charter of the new University for Birmingham would be granted early next year, and that there would be a faculty of commerce in connection therewith. A question was raised as to how far educational schemes came within the purview of the chamber, and it was explained that its active intervention would cease when the local system of education had been properly co-ordinated. Mr. Neville Chamberlain said they were on the eve of a new departure in the educational life of Birmingham. They were looking forward to the rise of a University which would take up new and special lines, including commercial education. That was a great experiment, and it seemed to him to be the duty of that chamber, as representing the commercial life of Birmingham, to do what it could to ensure the success of the experiment. Other members concurred, and the report was approved.

SOCIETY OF CHEMICAL INDUSTRY—*Liverpool Section*.—The next meeting of the Section will be held on Wednesday, 29th November, 1899, at 7-30 p.m., in the Chemical Laboratories, University College. Business:—1. Appointment of Trustees of the Hurter Memorial Lecture Fund; 2. Exhibits of Cotton, Cloth, and Metallurgical Products, from Central Africa, by Mr. Stephen J. Lett; 3. Paper on the "Cleansing of Raw Spirit by means of Cold Air," by Mr. R.C Scott.—*Nottingham Section*: Thesecond meeting of the session will be held in the Municipal Technical College, Derby, on Wednesday, Nov. 29th, at 7 p.m., by kind invitation of the Principal, Mr. F. W. Shurlock, B.A., B Sc., when the following paper will be read:—"The equivalent displacement of metals from salt solutions,' by R. M. Caven, B Sc. Members are invited to look over the College from 6-30 to 7 p m. A convenient train leaves Nottingham (Mid.) at 5-45 p.m., returning at 9-10 and 9-40 p.m. Members are reminded that they should now propose candidates for election to the membership of the Society, as the financial year closes in December. Proposal forms may be obtained from the local secretary. *Manchester Section:* The second meeting of the session will be held on Friday, December 1st, 1899, in the Rooms of the Chemical Club, Victoria Hotel, at seven o'clock in the evening, when the following papers will be read:—"Notes upon the Analyses of some Sugar Syrups," by Dr. A. K. Miller and Percy Potts; "Oxidation of Organic Matter by Liquid Chlorine," by T. Aspinall.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols keep about the same as regards position, with 90's at 9½d. to 10d. and 50/90's 10d. to 11d. Carbolic acids are very firm, though prices are not quite so inflated as last week—crude is now worth 2s. 4d., crystals 8¾d., and liquid 1s. 2d. Naphthas steady and unaltered. Pitch is keeping steady at 33s. 6d to 34s., f.o.b. East Coast. Anthracene 3½d. to 4d. for 30% A and 2½d. to 3d. for B.

Sulphate of ammonia is much stronger, almost suspiciously so. For forward delivery up to next March Beckton asks £11 7s. 6d., and Hull £11. 10s. Makers are well sold up to the end of this year. Closing prompt values are:—London outside makes, £11. 5s.; Hull, £11. 2s. 6d.; and Leith, £11. 2s. 6d. Nitrate of soda steady.

MISCELLANEOUS CHEMICAL MARKET.

In the alkali and chemical trade, generally, there is brisk demand, and makers all round are unusually busy. Bleaching powder is active, both for home and export, but without change in price. Caustic soda continues strong, and there is a tendency to higher prices. Pure alkali, 58%, firm at £4. 7s. 6d. Saltcake in better request. Soda crystals quiet at 55s. Chlorates of potash and soda in want of improvement; 3½d. and 3¾d. are to-day's prices. Ammonia salts steady; carbonate has been advanced to 3½d.; muriate (grey) still stands at £23. 10s., but we cannot hear of much business passing at this figure. Sulphate of copper moves well at £24. 15s. White sugar of lead, £23. 15s., c.i.f. Borax flat at £16. White powdered arsenic remains in excellent request at £19. 5s. to £19 10s., at Garston. Acetates of lime somewhat scarce, but the advance appears to have frightened buyers meantime. Crude carbolic acid is well maintained at last week's prices. Tannic acid has advanced 2d. per lb. Oxalic dull, and price weak. Caustic potash and carbonate of potash very scarce, and high prices are being realised. Tin crystals are a shade weaker in price, in sympathy with the decline in the metal. In fine chemicals, used in the dyeing and printing trades, business continues satisfactory.

REPORT ON MANURE MATERIAL.

There is no special feature in the market upon which to comment, business being quiet in all departments.

Florida phosphate rock is quoted 8¼d. per unit, c i.f. to good U.K. ports, but a fraction less would probably be accepted. Tennessee is freely offered at 7¼d. per unit, 78%, but this is rather above selling value. There is no change in the position of Algerian and South Carolina descriptions.

Bone meal has been easier during the past few weeks, but the advance in sulphate ammonia may strengthen the market. Meantime, there are sellers of fair average quality Bombay, December/January shipment, at £4. 15s. per ton, delivered terms.

Nitrate of soda is steady at 7s 10½d. per cwt. for good, and 8s. per cwt. for refined quality.

Dried blood offers at 9s. 9d. per unit, f.o.b. Liverpool, home prepared.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—There is an improvement in the demand for palm oil, and the market is steadier, with Old Calabar sold at £22 5s., to arrive. Olive is strong at the advance, and £34. 10s. to £35. is now asked for Seville; and £36. to £36. 10s. per tun, Malaga, both for shipment. Linseed is rather easier, Liverpool makes in export casks now being quoted 23s. 3d. to 24s. cwt. Cottonseed firm, with Liverpool refined 19s. to 19s 6d. cwt. Castor oil quiet and somewhat easier, good seconds Calcutta figuring at 3d., and first pressure French, 2$\frac{13}{16}$d. per lb Tallow is dull, and there is practically nothing doing to test values. Resin is enjoying a fairly good demand, at full prices, in all grades. Spirits of turpentine are firm at 38s. 3d, and fairly sought after. Petroleum quiet, and prices unaltered.

CAKES.—With the clearance of the lower qualities of American Western linseed on the spot, there is a quietly steady tone ruling in the market, and sellers now quote £7. 6s. 3d. to £7. 7s. 6d. River Plate are again easier, business having been concluded at £7. 6s. 3d., but for Bombay there is a fair inquiry going on, and the value is steadily maintained at £7. 15s. to £8. per ton, whilst the quotation for Russian is purely nominal in the continued absence of supplies here. The consumptive inquiry for Liverpool makes has been on only a moderate basis, even at a further decline of 2s. 6d., home crushers now offering at £8. 7s. 6d. to £9. per ton, according to brand. Good to choice brands of American decorticated cottonseed are firmly held for former currencies, but the business passing has reached to only a moderate extent at former values, viz., £5. 17s. 6d. to £6. 5s., according to quality, and Liverpool makes continue steady at £6. 12s. 6d. to £6. 15s. per ton, according to brand, with a moderate trade passing thereat. Egyptian on the spot are again nominally the turn easier at £4. 15s. per ton for sound, with little or nothing passing.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—The sequel of the mysterious movement of Mr. Bedford, of the Standard Oil Co , of N.w York, who has lately been attracting attention in London, is now before the oil trade in an advance of £1. per ton upon all lubricating oils—with the extinction of the falling clause in contracts. There are little alterations in the situation of seed oils, viz., linseed and cottonseed oils. The export of linseed oil for the week has been 26 tons: 13 tons to Denmark, 2 France, 2 Germany, 5 Holland, 4 Norway; whilst the import of seed for the week has been 29,573 qrs. against 30,324 qrs a year ago. Linseed oil is quoted 21s. 6d. naked, spot, with a quiet market; 21s. 3d., November/December; 20s. 10½d., January/April; £1. to £1. 10s. per ton extra for boiled and refined. The exports for the week of refined cottonseed oil have been 222 tons: 10 tons Belgium, 17 France, 66 Germany, 96 Holland, 33 Sweden; whilst the imports of seed have been 10,979 tons, against a year ago 14,877 tons. Refined cotton oil, a quiet market, being quoted 16s 7½d. spot, naked, and same in all positions to April; casks, £1, and ordinary barrels, £1. 10s. per ton extra. Olive oil very firm, being quoted from £34 10s. upwards, according to origin. Olive oil soap, in sympathy, is firm from £18. 10s. per ton, ex quay, to arrive Turpentine, 38s. 6d. Resins firmer and in better demand, being quoted from 4s. 10½d. for "G" grade. Tallow unchanged. Castor oil quiet. Yorkshire brown grease is quoted from £10. per ton. Cod oils from 16s. to 19s.

CAKES.—All feeding stuffs appear to experience an all round fair demand, with oilcakes in a strong position. Linseed cakes firm, demand better: 95% pure, £8. 7s. 6d. to £8. 12s. 6d. per ton. Oilcakes (linseed), £7. 5s. to £7. 10s.; Russians, £8. to £8. 5s. Cotton cakes steady and in good demand—best makes, £4. 12s. 6d. to £4. 15s.; seconds, £4. 7s. 6d. to £4. 10s. Rape Cakes unchanged.

PAINTS.—A seasonable slackness, with unchanged prices.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The most outstanding circumstance in the market is the improved position of sulphate of ammonia, which after a steady slide from about so far back as May, when a summit of £13. was touched, has within a week past taken a turn. The lowest figure bottomed for prompt f.o.b. Leith was £10. 7s. 6d Quotations for the same to-day are £10. 15s. 6d. to £10. 17s 6d., so that the recoil has been very good for a start. Opinion is much divided on the market as to the behaviour of the article in the immediate future. Sulphate of copper has lost slightly. The heavy chemicals are all very steady, and some of them still scarce. Mineral oils and paraffin are all pretty firm, and makers well called on for supplies. Underneath, no change of figure is made in this section as yet, but lubricating oils are likely to go up. Week's imports of sugar at Greenock were 10,383 bags and 206 hhds. of beet, unrefined.

Chief prices current are:—Alum in lump, £4. 5s. to £4. 15s. nett, Glasgow; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett. Glasgow; caustic soda, white, 74°, £9 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 10s., all nett, Liverpool; chlorate of potash, 3½d, less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5 10s.; 885°, £6. to £6. 10s. and 890/895°, £6. 15s. to £7.; salammoniac, first and second white, £40 and £38. nett, any port; saltcake, 27s.; soda crystals, £2 15s. to £2. 17s. 6d., basis, nett, Tyne; soda ash, £4. 10s. to £4. 15s., nett Tyne; sulphate of ammonia, £10. 15s. to £10. 17s. 6d. prompt, f.o.b. Leith; sulphate of copper, £24. 10s. to £24. 15s. less 5% Liverpool; white alkali, £5. to £5. 7s. 6d. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals are steady and prices remain unchanged. Caustic soda, 70%, £9. 5s., and 76/77%, £10. per ton. Sulphur scarce at £4. 15s. per ton. Soda crystals are £2. 17s. 6d. per ton, gross weight, locally.

Bleaching powder, softs, £6. per ton, nett; do, hards, £6. 5s. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do, 50%, £4. 17s. 6d. per ton, nett; do., 52%, £5 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. 0d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4 per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is firm at 9s. 6d. to 10s. per ton, f.o.b. Tees.

COALS.—Trade continues very firm, and there is great scarcity in gas and bunker coals. Coke is in strong demand, and "best Durham" is now quoted at 27s. 6d. per ton, free on board. To-day's prices:—Best Northumbrian steam, 12s 9d. to 13s. per ton; second qualities, 11s. 9d. to 12s. per ton; small steam, 7s. 6d. to 8s. per ton; bunker coals, 12s. 6d. to 13s. per ton; gas coals, 12s. 6d. to 13s. 6d.; coke, 27s. 6d. per ton.

New Companies.

H. W. Matthews & Co., Ltd.—CAPITAL £1,000. in £5. shares. This company has been formed to carry on in Hull or elsewhere the business of dealers in coal, coke, limestone, granite, stone, oils, greases, corn and other mineral and vegetable substances.

Compagnie de Recherche et D'Exploitation de Gisements Metalliferes, Ltd.—CAPITAL £1,000. in £1. shares. This company has been formed to adopt an agreement with A. M. M. Blum, and to carry on any mining, industrial, commercial, financial or other business.

Ditton Oil Mills, Ltd.—CAPITAL £5,000. in £1. shares (1,000 deferred). This company has been formed to carry on the business of seed merchants, crushers, dealers in seed cake, cake manufacturers, oil merchants, oil and grease exttactors, decorticators, oil refiners, pitch, tar, rubber, and galvanised rubber manufacturers and merchants, etc.

Northern Wood Haskinizing Co., Ltd.—CAPITAL £150,000. in £10. shares. This company has been formed to acquire the exclusive use in Northumberland, Durham and York (including the Humber ports), and elsewhere, of the patents for the preservation and treatment of wood now belonging to the Haskin Wood Vulcanising Co., Ltd., being patents No. 3,875 of 1889, 23,866 of 1892, and 18,195 of 1897, and to carry on the business of dealers in and preservers of timber and wood, timber growers, sawmill proprietors, and manufacturers of and dealers in all articles in the manufacture of which timber or wood is used. The subscribers to the memorandum of association are:—L. Wood, The Hermitage, Chester-le-Street, baronet; H. Bell, Middlesbrough, ironmaster; J. Dent, Newcastle-on-Tyne, shipowner; W. S. Vaughan, Newcastle-on-Tyne, engineer; J. W. Spencer, Newbiggin House, Kenton, Northumberland; G. B. Hunter, Wallsend-on-Tyne, shipbuilder; N. C. Cookson, Sandhill, Newcastle-on-Tyne, lead manufacturer.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 11th.

Acetic Acid—
Holland, 15 pks. A. & M. Zimmermann

Acetone—
Austria, 15 pks. G. Brown

Alkali—
U. States, 3 t. 6 c. J. Barber & Co.

Alum—
Holland, 30 pks. W. G. Taylor & Co.

Ammonium Muriate—
Holland, 37 pks. H. Lorenz

Belgium, 5 H. Lorenz

Antimony Ore—
N. S. W., 8 t. Drolenvaux & Brenner

Arsenic—
Portugal, 48 pks. Coverdale & Whitmore

Barium—
Germany, £60 H. Johnson & Sons

Baryta—
Germany, 11 pks. Beck & Pollitzer
Holland, 79 Perkins & Homer
,, 47 Thames S. T. & L. Co., Ld.
,, 44 W. Harrison & Co.
,, 129 O'Hara & Hoar
,, 147 J. L. Lyon & Co.
Belgium, 105 ,,
,, 382 W. Harrison & Co.
,, 11 Beck & Pollitzer

Bleach—
Belgium, £60 Erith & Dartford

Bleaching Powder—
Germany, 134 pks. J. M. Steel & Co.

Bones—
Sydney, 46 t. Hicks, Nash & Co.
,, 18 Anning & Cobb
Melbourne, 9 C. M Lampson & Co.
Brisbane, 5 Prop. Concordia Wf.

Bromine—
Germany, 30 pks. A. & M. Zimmermann

Caoutchouc—
Straits, 1 t. 5 c. Prop. Bull Wf.
,, 2 18 E. Boustead & Co.
,, 9 9 L. & I. D. Jt. Co.
Aden, 1 5 Wallace Brs.
E Indies, 10 W. Menzies & Co.
,, 8 Dunlop Brs. & Co.
,, 5 Prop. Bull Wf.
Rep. Colombo, 4 W. M. Smith & Sons
Thursday Is., 15 Prop. Bull Wf.
Portugal, 5 ,,
France, 2 15 ,,
,, 1 3 Procter Brs
Germany, 1 4 Lewis & Peat
,, 1 Prop Bull Wf.
Rangoon, 18 ,,
Chinde, 4 L & I. D. Jt. Co.
Inhambane, 6 13 ,,
B E. Africa, 4 ,,
Zanzibar, 2 11 ,,
Natal, 3 ,,
Straits 2 18 E. Boustead & Co.
,, 2 16 Elkan & Co.
Holland, 2 W. Balchin, Ld.
U. States, 9 G T. Benton & Son
Sydney, 18 Leedham, Crowe, & Co.

Castor Oil—
France, 9 cks. Beresford & Co.
Italy, 55 cs. City Coml Wf. Co., Ld.
,, 20 Nicholson's Whvs., Ld.
,, 10 Major & Field
,, 5 C. Gee & Co.
Germany, 1 T. Christy & Co.

Caustic Potash—
Belgium, 10 pks. Union L. Co., Ld.
Germany, 75 J. M. Steel & Co.

Chemicals *(otherwise undescribed)*
Holland, £45 J. Barber & Co.
Germany 19 Argo S. S. Co
,, 11 A. & M. Zimmermann
,, 33 Petri Brs.
,, 20 Craven & Co.
,, 20 J. Barber & Co.
Belgium, 9 T. Palmer
,, 41 John Cockerill Line
,, 110 S. C. Jones
France, 160 Mory & Co.
U. States, 230 H. Harkness

Coal Products—
Carbolic Acid
Germany, 16 pks. Hollingshurst & Co.
Pitch
France, 60 cks. H. Hill & Sons
,, 60 Page, Son, & East
N. Russia, 300 brls. Harris Brs.
,, 182 Ragosine & Co
Tar
Germany, 60 brls. Linck, Moeller, & Co.
U States, 100 Elkan & Co.
N. Russia, 254 Linck, Moeller, & Co.
,, 134 W. Beard

Colours—
Germany, 3 cks. Craven & Co.
Italy, 67 R. Baelz & Co.

Cream of Tartar—
Italy, 4 pks. R. Christophersen & Co.
,, 5 B. & F. Wf. Co., Ld.
France, 10 F. C. Devon & Co.
,, 5 C. Atkins & Nisbet
,, 5 M. Ashby, Ld.
,, 5 W. C. Bacon & Co.
Spain, 48 Coverley & Westray

Dyestuffs—
Argols
Spain, 175 pks. Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 13 pks. Hendry & Martin
Cutch
Rangoon, 150 pks. A. Howdon & Co.
Extracts
Germany, 131 pks. J. Norrenberg & Co.
,, 3 Argo S. S. Co.
U. States, 10 W. C. Barnes & Co.
Denmark, 2 Burton Baker, & Co.
Canada, 350 Boutcher, Mortimore & Co.
France. 50 B. & F. Wf. Co., Ld.
Gambier
Straits, 252 pks. W. Pope & Co.
,, 78 W. France & Co.
,, 252 Prop. Hay's Wf.
Indigo
E. Indies, 6 chts. Wallace Brs.
Myrabolams
E. Indies, 683 pks G. R. Haller
Saffron
Spain, 2 pks. H. Rubeck
,, 1 C. Brumlen & Co
Sumach Extract
Holland, 4 pks. Phillipps & Graves
Tanners' Bark
Melbourne, 214 t. Brown & Elmslie
Belgium, 9 Leach & Co.
Natal, 3 Bullard, King, & Co.
N. Zealand, 12 Von der Meden & Co.
Turmeric
E. Indies, 335 pks Dalton & Young

Farina—
Germany, 100 pks. Seaward Brs., Ld.
,, 250 R. Bennett & Co.
,, 30 J. Barber & Co.
Holland, 50 Dunlop Brs. & Co.

Glucose—
U. States, 500 pks. 500 c. E. Herring & Co.
,, 100 100 L. & I. D. Jt. Co.
,, 2,650 2,650 R. G. Hall & Co.
Germany, 25 198 M. D. Co.
,, 200 200 J. Frank & Ohlmann
,, 50 100 Beresford & Co.
France, 200 200 L. Norman & Co., Ld.
,, 150 150 C. Barnard
,, 212 212 Trier, Meyer, & Co.
,, 300 300 Deering & Robottom

Glue—
France, £953 T. M. Duche & Sons
,, 1,533 Prop. Hay's Wf.
,, 73 Mory & Co.
Belgium. 70 Leach & Co
Sydney, 120 Anning & Cobb
U. States, 30 L. & I. D. Jt. Co.
Germany, 50 H. Lambert

Glycerine—
France, £35 J. L. Lyon & Co.
Holland, 420 J. Barber & Co.
Melbourne, 800 H. Hill & Sons

Gutta Percha—
Germany, 5 t. 13 c. L. & I. D Jt. Co.
,, 17 Atlantic Transport Co.
Straits, 14 6 L. & I. D. Jt. Co.
,, 9 4 Kleinwort, Sons & Co.
,, 39 9 Gilman Brs. & Co.
,, 12 Anderson, Weber, & Co.

Manganese Ore—
Germany, 2 t. J. Barber & Co.

Manure—
E. Indies, 200 t. Barber & Garratt
,, 100 Walker, Howard & Co.
,, 395 Fox, Roy, & Co.
,, 200 Hollinghurst & Co.
,, 100 T. T. Creed

Methylic Alcohol—
France, 9°0 g. Lister & Biggs
,, 20 dms. E. J. Catlin
Germany, 19 W. Izzard
,, 1,400 g. Tingle, Jacobs, & Co.

Molasses—
U. States, 100 cks 554 pks Ohlenschlager Brs.

Ochre—
U. States, 73 pks. Taylor Brs.
Holland, 31 Phillipps & Graves
France 322 W. Harrison & Co.

Oxalic Acid—
Norway, 20 pks. S. C. Dk. Co.

Paraffin Wax—
U. States, 240 cs. Anglo-American Oil Co.

Phosphate—
France, 50 t. Anglo-Contl. Guano Works
Holland, 170 Lawes Chemical Manure Co.

Phosphorus—
Canada, 65 pks. Langstaff, Ehrenberg, & Co.

Potash—
Belgium, 2 t. 16 c. J. Forsey

Potassium Carbonate—
Canada, 16 t. Charles & Fox

Potassium Chlorate—
Sweden, 35 pks. G. Boor & Co.

Potassium Muriate—
Germany, 100 t. Bessler, Waechter, & Co.

Potassium Permanganate—
Germany, 60 pks. R. W. Greeff & Co.

Potassium Sulphate—
Germany, 500 pks Anglo-Contl. Guano Works

Pyridine—
France, £125 J. Owen

Pyrogallic Acid—
Germany, 5 pks. L. & I. D. Jt. Co.

Pyroligneous Acid—
France. 60 bgs. Burnett Brs. & Sons

Red Lead—
Holland, 4 pks. J. Owen
,, 7 Randall Brs.
,, 1 J. Barber & Co.
Germany, 83 Blundell, Spence, & Co

Rosin—
U. States, 1,700 brls. Hoare & Hole
France, 20 J. Williams & Son
Germany, 14 Becker & Wagner

Salicylic Acid—
Germany, 4 pks. T H. Lee

Saltpetre—
E. Indies, 1,614 bgs. Perkins & Homer

Soda Crystals—
Holland, 5 t. Little & Johnston

Sodium Acetate—
France, 19 pks. J. Harrison

Sodium Hyposulphite—
Germany, 5 t. 18 c. H. Lambert

Sodium Nitrate—
Chile, 1,580 t. W. Montgomery & Co

Sodium Nitrite—
France, £95 Burnett Brs & Sons

Starch—
France, 1,070 pks E. & T. Pink
,, 26 L. Mendelsohn
,, 200 J. Barber & Co.
,, 1,300 W. E. Cole
,, 20 L & I. D Jt. Co.
Germany, 5 Brasch & Rothenstein
,, 2 T. H. Lee
,, 400 J. R. Francis & Co.
,, 1,800 Horne & Co.
,, 700 Seaward Brs., Ld,
U. States, 250 R. G. Hall & Co.
,, 110 C. Tennant, Sons & Co
,, 568 J. Forsey
,, 600 Ohlenschlager Brs.
Holland, 50 E. & T. Pink
,, 1,871 Little & Johnston
,, 88 Prop. Scott's Wf.
,, 88 J. Barber & Co
,, 26 Netherlands S. B. Co
,, 40 G S N. Co.
Belgium, 156 Leach & Co.
,, 250 Becker & Wagner
,, 37 T. H. Lee
,, 230 J. Harrison
Austria, 10 Bellamy's Wf., Ld.

Stearine—
Belgium, 152 cks. J. [illegible]
,, 52 bgs. H. Hill & [illegible]
France, 320 G. Boor [illegible]
Holland, 81 A. G. Robinson [illegible]
,, 96 bls. J. [illegible]

Sulphate (Alumina)—
Holland, 78 pks. Little & Johnston

Sulphur—
Italy, 200 t Ekman Pulp & Paper Co.

Tallow—
Germany, 22 cks. Union L. Co., Ld
,, 171 Deering & Robottom
,, 65 A. Frey & Co.
Victoria, 9 Prell, Rushall, & Co.
,, 503 Netherlands S. B. Co.
,, 472 Elkan & Co.
,, 20 Goad, Rigg, & Co.
,, 167 J. W Cook & Co., Ld
,, 250 Phillipps & Graves
,, 5 C. A. & H. Nickels
,, 80 pks. H. Lambert
N. Zealand, 50 cks. J. W. Cook & Co., Ld.
,, 17 Flack, Chandler, & Co.
,, 20 N. Z. L. & M. A. Co.
,, 25 Deering & Robottom
,, 112 J. Graves
,, 300 Goad, Rigg, & Co.
,, 172 Phillipps & Graves
,, 122 Brown & Elmslie
N.S.W., 1,144 Meredith Brs.
,, 189 Culverwell, Brooke, & Co.
,, 382 Goad, Rigg & Co.
,, 79 Anning & Cobb
,, 195 Hoare & Wilson
,, 138 Netherlands S. B. Co.
,, 124 Elkan & Co.
,, 932 Phillipps & Graves
,, 413 Lucas & Spencer's Wf.
,, 255 Union Ltge. Co., Ld.
,, 8 Cuthbert & Hall
,, 37 G. S. Yuill & Co.
,, 1,287 Beresford & Co.
Belgium, 3 T. H. Lee
Queensland, 63 A. F. Gardiner
,, 207 Concordia Wf.
,, 128 Mordaunt Brs.
,, 309 Beresford & Co.
,, 72 Aust. Meat Co.
,, 334 Bessler, Waechter, & Co.
,, 182 Dalgety & Co., Ld.
,, 151 N. Z. L. & M. A. Co.
,, 166 Anning & Cobb
,, 486 Phillipps & Graves
Canada, 17 R. Tucker & Co.
France, 18 W. E. Cole
,, 58 D Smith
U. States, 150 Lunham & Moore
,, 32 cs. ,,

Tartaric Acid—
Holland, 12 pks. Kirkpatrick, Barr, & Co.

Ultramarine—
Holland, 2 pks. W. Harrison & Co.
,, 22 Netherlands S. B. Co.
Germany, 6 Argo S. S. Co.

Varnish—
Belgium, 2 pks. T H. Lee
Germany, 2 ,,

White Lead—
Belgium, 10 pks. W. Balchin, Ld.
,, 66 R. Steuart
Holland, 57 ,,
,, 28 Burrell & Co.
,, 20 Kerestedji & Co.
France, 37 J. Watt & Son
Germany, 50 Randall Brs.
,, 35 H. B. Alder & Co.

Wood Pulp—
Sweden, 300 pks. M. Murray's Paper Mills
,, 250 Tough & Henderson
,, 180 Andrews & Co., Ld.
,, 4,889 Henderson, Craig & Co
,, qty. W.G Taylor & Co.
Germany, 100 pks W. Friedlaender
,, 80 London Paper Mills Co.
Holland, 30 W. G. Taylor & Co.
Belgium, 2,097 J. Harrison
U. States, 287 A E. Reed & Co.

Zinc Oxide—
Belgium, 4 pks. H. Keller & Co.
,, 50 Kerestedji & Co.
,, 30 Colthurst & Harding
Germany, 500 Soundy & Sons
,, 50 M. Ashby, Ld.
Holland, 20 ,,
U. States, 350 ,,

LIVERPOOL.

Week ending November 9th.

Ammonia—
Boston, 100 bx. cylders J. Simpson & Co.

Antimony—
Antofagasta, 742 sks. A. Aramayo & Co.
" 504 Kleinwort, Sons, & Co.

Barytes—
Antwerp, 50 bgs. / 33 cks.
Rotterdam, 20 / 100 bgs.

Bones—
Natal, 12 t. Baistelman & Co.

Boracic Acid—
Leghorn, 14 cks. Pickford & Co.
" 88

Borate of Lime—
Antofagasta 1,400 sks. Duncan, Fox, & Co.

Caoutchouc—
Havre, 11 cks.

Chemicals (*otherwise undescribed*)
Rotterdam, 5 cs.

Citric Acid—
Bordeaux, 20 cs.

Colours—
Rotterdam, 8 cks.

Cottonseed Oil—
New York, 12 brls.

Cream of Tartar—
Bordeaux, 37 cks.
Barcelona, 3
Tarragona, 13 brls.

Dried Blood—
Valparaiso, 11 cs. A. Shute

Dyestuffs—
Cochineal
Gd. Canary, 10 bgs. G. S. Bruce
Teneriffe, 24 Caulfield, Wilson, & Co.
Cutch
Hamburg, 20 bgs.
Extract
Rouen, 182 cks. / 10 cs
Bordeaux, 156 cks. R. J. Francis & Co.
St. Nazaire, 60
Havre 6
New York, 143 W. I. Chem Co.
" 50 brls M'Arthur & Co.
Myrabolams
Bombay, 1,675 bgs. D. Sassoon & Co.
" 3,435 / 2,000 pckts.
Sumach
Barcelona, 100 bgs.
Palermo, 1,523

Glucose—
Boston, 500 brls.
New York, 101

Glue—
New York, 20 brls. Anglo-Amer. Oil Co.
Hamburg, 40 bgs.
Antwerp, 20
Rouen, 14 cks. / 16 bls.
Havre, 4

Horn Piths—
Hamburg, qnty.

Iodine—
Tocopilla, 26 brls

Lead Acetate—
Hamburg, 15 cks.

Limestone—
Antwerp, 1 crt. J. T. Fletcher & Co.
" 3

Lithopone—
Rotterdam, 20 cs. / 14 cks

Manganese—
Coquimbo, 600 t.

Manure—
Bombay, 760 bgs. A. Ewart & Co.

Molasses—
Alexandria, 800 brls.

Ochre—
Paris, 49 cks. R. J. Francis & Co.
Rouen, 25

Paraffin Wax—
New York, 1,625 brls. Thompson & Bedford

Potash—
Dunkirk, 19 dms. Bancroft & Co.
" 40
Rotterdam, 4 cks.
Rouen, 28 dms

Potash Salts—
Iquique, 3 bgs. G. Petrie

Pyrites—
Huelva, 1,712 t. Matheson & Co

Red Lead—
Rotterdam, 32 cks.

Salt—
Hamburg, 400 bgs.

Saltpetre—
Hamburg, 50 kgs.

Soap—
Naples, 197 cs.
New York, 3,500 bxs.

Soap Lyes
Barcelona, 20 cks.

Soapstone—
Genoa, 300 bgs.

Sodium Hyposulphite—
Hamburg, 24 cks.

Sodium Sulphite—
Boston, 10 cks. G. H Fletcher & Co.

Starch—
Boston, 125 bgs.
Hamburg, 20 cks.
Antwerp, 80 cs. J. T. Fletcher & Co.
" 200
Rotterdam, 120

Stearine—
Antwerp, 10 cks. J. T. Fletcher & Co.
25 bgs.
" 14

Sulphur—
Catania, 100 cks. Richard Mills & Co.
50 bgs.
" 640 / 5 brls.

Tallow—
Boston, 102 tcs. S. M. Mare & Co.
" 232
" 76 Lever Brs, Ld.
Rouen, 64 bgs. Co-op W'sale Society, Ld.

Ultramarine—
Hamburg, 6 cs
Rotterdam, 26 pks.

Varnish—
New York, 20 brls.

White Lead—
Rotterdam, 67 cks.

Wood Pulp—
Boston, 95 cs. Lever Brs., Ld.

Zinc Ashes—
Oporto, 22 brls.

Zinc Oxide—
Rotterdam, 140 brls.

Zinc White—
Hamburg, 80 cks.
Rotterdam, 30

MANCHESTER.

Week ending November 11th.

Acetate of Lime—
New York, 1 211 bgs.

Ammonia—
Rotterdam, 1 csd.-cdr.

Antimony—
Treport, 2 cks.

Barytes—
Antwerp, 146 bgs.
Hamburg, 11 cks.
Rotterdam, 5 / 250 bgs.

Caustic Potash—
Dunkirk, 4 dms.
Treport, 53

Chemicals (*otherwise undescribed*)
New York, 20 cks.

Chromium Acetate—
Rotterdam, 10 cks.

Coal Products—
Alizarine
Rotterdam, 67 cks.
Aniline Colours
Rotterdam, 68 cks. 1 cs.
Beta Naphthol
Rotterdam, 2 cks

Colours—
Antwerp 5 cs.
Hamburg, 3 cks. 5
Rotterdam, 49 26

Cream of Tartar—
Rotterdam, 12 cks.

Dyestuffs—
Extract
Rotterdam, 7 cks.
Sumach
Bordeaux, 32 bls. J. & P. Hutchison

Farina—
Rotterdam, 500 bgs. N. W. Jackson
" 450
Stettin, 1,830 Browne, Geveke & Co.
" 800

Glucose—
New York, 100 brls.
Stettin, 200 bgs. / 4 cks

Glue—
Antwerp, 31 bls.
Hamburg, 10 bgs.
Rotterdam, 330
Stettin, 20

Lead Acetate—
Rotterdam, 18 cks.

Limestone—
Antwerp, 8 crts. 9 cs.

Litharge—
Rotterdam, 69 cks.

Methylene—
Treport, 14 cks.

Mineral White—
Bordeaux, 100 bgs. G. G Blackwell, Son, & Co., Ld.
" 500

Nitrate—
Rotterdam, 19 cks.

Ochre—
Treport, 20 cks.

Paint—
New York, 1 cs.

Paraffin Wax—
New York, 644 cs.

Sodium Sulphate—
Hamburg, 11 cks.

Starch—
Antwerp, 40 cs.
Hamburg, 80
Rotterdam, 130
New York, 6,175 bgs.

Stearine—
Rotterdam, 70 bls.

Sulphuric Acid—
Rotterdam, 27 dms.

Tannin—
Hamburg, 1 cs.

Tartaric Acid—
Rotterdam, 2 cks.

Ultramarine—
Hamburg, 2 cks.

Waste Salt—
Treport, 10 cks.

Wood Pulp—
Christiania, 4,220 bls. W. H. Ingram
Copenhagen, 100
Dunkirk, 281 pks.
Gothenburg, 2,220
Hamburg, 50 bdls.
New York, 53 cs.
Rotterdam, 50 pks.
Skein, 2,050 W. H. Ingram

Zinc Oxide—
Antwerp, 3 cks
Rotterdam, 120

HULL.

Week ending November 11th.

Acetic Acid—
Bremen, 10 crbys.
Rotterdam, 10 brls. Hull & Netherlands S. S. Co

Aluminium—
Rotterdam, 1 cs. Hull & Netherlands S. S. Co.

Asbestos—
Hango, 425 bgs.
Helsingfors, 116

Barytes—
Amsterdam, 115 cks. Hull & Netherlands S. S. Co.
" 92
Antwerp, 13 Bailey & Leetham, Ld.
30 bgs.
Bremen, 103 cks.

Borax—
Hamburg, 5 cs. Wilson, Sons, & Co., Ld.
" 15

Caustic Soda—
Dunkirk, 6 cs. Wilson, Sons, & Co, Ld.

Coal Products—
Alizarine
Rotterdam, 243 pks. Hull & Netherlands S. S. Co.
37 brls
Beta Naphthol
Rotterdam, 2 bxs. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 55 cks. Hull & Netherlands S. S. Co.
Pitch
Copenhagen, 30 brls. Wilson, Sons, & Co., Ld.
Rotterdam, 10 kgs. Hull & Netherlands S. S. Co.
Tar
Konigsberg, 125 brls. Wilson, Sons, & Co., Ld.
Hamburg, 2 cks.
Tar Salts
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.

Colours—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co
Antwerp. 4 Sissons Brs. & Co.
Hamburg, 7 pks.
Rotterdam, 397 Hull & Netherlands S. S. Co.
2 cks.
" 2 Wilson, Sons, & Co., Ld.
1 cs.

Cream of Tartar—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.

Dyestuffs—
Extract
Bordeaux, 32 cks. Rawson & Robinson
Dunkirk, 10 cks.
Rouen, 57 Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.
6 cs.
Valonia
Smyrna, 170 t.

Dyewood—
Antwerp, 50 bls. Wilson, Sons, & Co., Ld.

Farina—
Amsterdam, 50 bls. Wilson, Sons, & Co., Ld.
Hamburg, 100 bgs.
Harlingen, 250 Hull & Netherlands S. S. Co
Stettin, 150 Wilson, Sons, & Co., Ld.
Rotterdam, 4 cks. "

Glucose—
New York, 150 brls. Wilson, Sons, & Co., Ld.
" 500 bgs.
Stettin, 100 "

Glue—
Hamburg, 50 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.
Rouen, 9 bls.

Glue Stock—
Hamburg, 115 bls. Wilson, Sons, & Co., Ld.

Nickel Salt—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.

Ochre—
Rouen, 129 cks. Wilson, Sons, & Co., Ld.

Paint—
Amsterdam, 32 pks. Hull & Netherlands S. S. Co.

Paraffin Wax—
New York, 169 brls.

Potash—
Antwerp, 20 dms. Wilson, Sons, & Co., Ld.

Potassium Nitrate—
Antwerp, 26 pks. Wilson, Sons, & Co., Ld.

Red Lead—
Amsterdam, 7 cks. Hull & Netherlands S. S. Co.

Saltpetre—
Antwerp, 135 bgs. Wilson, Sons & Co., Ld.

Soap—
Boston, 7 cs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 Hull & Netherlands S. S. Co.

Soda—
Antwerp, 111 pks. Wilson, Sons, & Co., Ld.
Ghent, 100 bgs.
Hamburg, 9 cks. "

Sodium silicate—
Antwerp, 250 bgs. Wilson, Sons, & Co., Ld.

Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
Antwerp, 40 cs. Bailey & Leetham. Ld.
" 26 Hall & Son
Antwerp, 170 Wilson,
2 bgs. Sons, & Co., Ld.
Bremen, 2,864 cs. Veltmann & Co.
Ghent, 172
Dunkirk, 50 bgs. Wilson, Sons, & Co , Ld.
Rotterdam, 50 cs. Hull & Netherlands S. S. Co.

Tallow—
Boston, 75 trcs. Wilson, Sons, & Co., Ld.
Dunkirk, 140 cks. "
New York, 168 brls.

Tartaric Acid—
Rotterdam, 5 cks. Hull & Netherlands S. S. Co.

Ultramarine—
Bremen, 40 cks. Sissons Brs. & Co.
" 2 J. Pyefinch & Co.
Rotterdam, 26 Hull & Netherlands S. S. Co.

Verdigris—
Rotterdam, 1 brl. Hull & Netherlands S. S. Co

White Lead
Antwerp, 10 brls. Bailey & Leetham, Ld.
Amsterdam, 47 cks. Hull & Netherlands S. S. Co.
Rotterdam, 38 "

Wood Pulp—
Bergen, 180 pks. Wilson, Sons, & Co., Ld.
Christiania, 2,242 bls. "
Drontheim, 240 "
Gothenburg, 517 pks. "
Helsingfors, 482 bls. J. Good & Sons
" 16 Furley & Co.
" 246

Zinc Chlorate—
Hamburg, 1 cs. Bailey & Leetham, Ld.

Zinc Oxide—
Antwerp, 40 cks. Bailey & Leetham, Ld.

GLASGOW.

Week ending November 16th.

Antimony—
Hamburg, 7 cks.

Antimony Salt—
Hamburg, 10 kgs.

Barium Sulphate—
Antwerp, 556 bgs

Castor Oil—
Antwerp, 83 cks.
Dunkirk, 90

Chemicals (*otherwise undescribed*)
Rotterdam, 3 cks. J. Rankine & Son
3 cs.

Coal Products—
Alizarine
Rotterdam, 53 brls. 1 bx.
Aniline
Rotterdam, 4 cks. J. Rankine & Son

Colours—
Hamburg, 31 cks. 8 cs.
Rotterdam, 5 cks. J. Rankine & Son
175 pks.

Cottonseed Oil—
New York, 100 brls.

Dyestuffs—
Cutch
Rangoon, 1 600 bxs.
Extract
Nantes, 250 cks.
Indigo
Rotterdam, 30 cks. J. Rankine & Son
Sumach
Palermo, 45 bgs.

Farina—
Delfszyhl, 1,250 pks. J. Rankine & Son

Ferro Manganese—
Rotterdam, 49t. J. Rankine & Son

Gelatine—
Hamburg, 6 cs.
Rotterdam, 1 ck. J. Rankine & Son

Glucose –
Newport News, 50 brls.

Glue—
Antwerp, 10 bls.
Boston, 10 kgs. 3 brls.
Hamburg, 50 bgs.
Nantes, 20
Rotterdam, 10 cs. J. Rankine & Son
70 bgs.

Glycerine—
Nantes, 10 cks.

Guano—
Cape Cross, 440 t. Lawes Chemical Co., Ld.

Gutta Percha—
Amsterdam, 47 cs. J. Rankine & Son

Lead Acetate—
Hamburg, 23 cks.

Litharge—
Rotterdam, 3 cks. J. Rankine & Son

Manganese—
Hamburg, 1 ck.

Ochre—
Newport News, 182 brls.

Painters' Colours—
Antwerp, 2 cks.

Paraffin Wax—
Rangoon, 954 bgs. 79 cs.

Potash—
Hamburg, 66 cks. 42 dms.
Montreal, 26 brls.
Rotterdam, 23 cks. J. Rankine & Son

Potassium Carbonate—
Hamburg, 20 cks.

Potassium Nitrate—
Hamburg, 57 cks.

Pyrites—
Huelva, 2,259 t. Tharsis Sulp. & Copper Co.

Saltpetre—
Hamburg, 45 bgs.

Soap—
New York, 100 tcs. 1000 cs.

Starch—
Antwerp, 10 bgs. 130 cs.

Stearine—
New York, 100 brls. 30 tcs.
Rotterdam, 18 cks. J. Rankine & Son

Sulphur—
Catania, 2826 bgs. 203 brls.
Girgenti, 730 t.

Talc—
Genoa, 100 bgs.

Tallow—
New York, 20 hhds.

Tartaric Acid—
Rotterdam, 6 cks. J. Rankine & Son

Varnish—
New York, 100 brls.

Waste Salt—
Hamburg, 101 t.

White Lead—
Rotterdam, 10 pks. J. Rankine & Son

Wood Pulp—
Gefle, 1,000 bls. Henderson, Craig. & Co.
Skutskar, 2,669 "
Drammen, 3,043
Christiania, 520
Christians'nd, 1,600
Rotterdam, 74 J. Rankine & Son

Zinc Oxide—
New York, 150 brls.

Zinc White—
Rotterdam, 10 cks. J. Rankine & Son
50 pks.

TYNE.

Week ending November 11th.

Alum—
Antwerp, 3 brls.

Alum Earth—
Hamburg, 59 cks Tyne S. S. Co.

Asbestos—
Hamburg, 49 bgs. Tyne S. S. Co.
Rotterdam, 1 crte. "

Barytes—
Rotterdam, 10 cs. Tyne S. S. Co.

Coal Products—
Tar
Bergen, 1 ck. P. H. Matthies en & Co.

Colours—
Antwerp, 4 crts. Tyne S. S. Co.
Rotterdam, 3 brls. "

Glue—
Hamburg, 20 bgs. Tyne S. S. Co

Limestone—
Antwerp, 8 crts. Tyne S. S. Co.

Lithopone—
Hamburg, 2 cks. Tyne S. S. Co.

Manganese Ore—
Antwerp, 100 t. Tyne S. S. Co.
Rotterdam, 394 "

Paraffin Wax—
New York, 45 brls. C. Hassell & & Son

Rosin—
Rotterdam, 12 brls. Tyne S. S. Co.

Saltpetre Salt—
Harburg, 300 t. Clephans & Wiencke

Starch—
Ghent, 40 cs. Tyne S. S. Co.
Rotterdam, 134 "

Tin Oxide—
Rotterdam, 1 cs. Tyne S. S. Co.

Wood Pulp—
Christiania, 1,660 bls. P. H. Matthiessen & Co.
Gothenburg, 60

Zinc Chloride—
Rotterdam, 20 bxs. Tyne S. S. Co

GOOLE.

Week ending November 8th.

Alkali—
Calais, 9 cks.

Alumina Sulphate—
Ghent, 12 cks.

Antimony—
Boulogne, 6 cks.

Barium—
Hamburg, 18 cks.

Barytes—
Antwerp, 17 cks.

Caoutchouc—
Boulogne, 25 cks.
Hamburg, 1 cs.

Chemicals (*otherwise undescri*
Hamburg, 23 cs.

Coal Products—
Alizarine
Rotterdam, 3 cks.

Colours—
Amsterdam, 2 cs.
Boulogne, 11 cks. 6
Hamburg, 21 3
Rotterdam, 328 39

Dyestuffs (*otherwise undescribe*
Boulogne 2 cks.

Farina—
Delfszhyl, 525 bgs.
Hamburg, 600

Glue—
Antwerp, 10 bs.
Boulogne, 2 cks.

Glycerine—
Hamburg, 4 dm

Potash—
Calais, 34 dm
Hamburg, 17

Saltpetre—
Rotterdam, 100 bgs.

Sodium Silicate—
Rotterdam, 4 cks.

Starch—
Amsterdam, 50 bgs,
Ghent, 156 cs.

Sulphur Ore—
Seville, 940 t.

Ultramarine—
Rotterdam, 8 cks.

Waste Salt—
Hamburg, 373 t.

Wax—
Hamburg, 14 bgs.

GRIMSBY.

Week ending November 11th.

Caoutchouc—
Antwerp, 2 cs.
Hamburg, 15
Rotterdam, 2

Chemicals (*otherwise undescribed*)
Hamburg, 5 cks.
Rotterdam, 20

Colours—
Antwerp, 32 cks. 24 pks.
Rotterdam, 13 cs. 24
Hamburg, 6 . 2 249

Dyestuffs (*otherwise undescribed*)
Dieppe, 18 cks.

Farina—
Hamburg, 100 bgs.

Ferro Chrome—
Antwerp, 80 cs.

Glue—
Antwerp, 2 cks.
Hamburg, 70 pks.

Soap—
Rotterdam, 8 bxs.

Starch—
Antwerp, 80 cs.

Waste Salt—
Hamburg, 3 cks.

Zinc Ashes—
Antwerp 7 cks.
Hamburg, 8

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 15th.

Ammonia—
Seville, 12 cs. £10

Pt. Elizabeth, 12 17
Alexandria, 5 15
Calcutta, 10 15
Hamburg, 10 dms. 19

Ammonia (Anhydrous)—
Amsterdam, 4 cyldrs. £13

Cologne, 48 135
Antwerp, 20 cs. 70

Ammonium Carbonate—
Hamburg, 20 cks, 11 cs. £91
Bombay, 6 c. 12
Antwerp, 14 t. 6 10 kgs. 424

Rouen, 11 17 303

Ammonium Muriate—
Newport News, 50 cks. £317

Ammonium Nitrate—
New York, 5 cks. £22

Ammonium Sulphate—

Dunkirk,	19 t.	13 c.	£200
Hamburg,	100		1,150
Demerara,	50		550
Bordeaux,	10		112
Bremen,	100		1,095
Surinam,	20		220

Arsenic –

Karachi,	5 cks.	£15

Basic Slag—

Demerara,	398 t.	14 c.	£740

Bisulphite Lime—

Cape Town,	1 t.	2 c.	£8

Borax—

Harlingen,		2 c.	£14
Rio de Janeiro,		10	8
Rotterdam,	50 cks.		75

Caustic Potash

Otago,		11 c.	£15

Caustic Soda—

Fremantle,	5 t.	1 c.	£42
Santos,	16	9	140
Karachi	1	1	15

Chemicals *(otherwise unenscribed)*

Genoa,	10 cks.			£121
Nelson,			8 pks.	27
Calcutta,			22	155
Singapore,		10 cs.		22
E. London,			7	37
Adelaide,		8	57	93
Melbourne,	30			25
Madras,		9		26
Ostend,		2		75
Auckland,			28	36
Sydney,		9		33
Cape Town,	1 tk.		8	44
Fremantle,		2		23
Demerara,	125 cbys.			32
Toronto,			35	143
Brisbane,			53	31
Wellington,		10	67	145

Chloride of Lime—

Durban,		7 c.	£6
Cape Town,		14	10

Citric Acid—

Amsterdam,	5 kgs.		£35
Rotterdam,	10		58
Yokohama,		10 c.	£63
Cape Town,		2	21
Hamburg,	16		103
Adelaide,		5	35
Bombay,		4	38
Calcutta,		1 cs.	6

Coal Products—

Alizarine

Boston,	57 cks.		£712
St. Petersburg,		5 cs.	196

Aniline

Barcelona,		7 pks.	£74

Aniline Oil

Barcelona,		6 brls.	£78

Anthracene

Cologne,	195 cks.		£412

Benzol

Stockholm,		12 dm.	£160

Carbolic Acid

New York,	75 cks.		£367
Pt Elizabeth,		1 cs.	5
Boston,	20		130
Amsterdam,	49		220
Cologne	182		800
Adelaide,	2		6
Calcutta,		20	98

Coal Tar Dyes

Boston,		5 pks.	£94

Creosote

New York,	218 cks.		£128
Gothenburg,	300		242

Naphtha

Melbourne,		100 dms.	£106

Naphthaline

Cologne,	6 cks.		£52
Philadelphia,	626		198

Pitch

Abo,	225 t.		£366
Malta,		50 brls.	18
Honfleur,	120		210
Leghorn,	1,200		2,100
Dunkirk,	710		1,109
Hamburg,		30	72
Amsterdam,	1,170		1,750

Pyridine

Hamburg,		4 dms.	£112

Tar

Abo,		700 brls.	£477
Auckland,		50 dms	11
Calcutta,	300 rnlts.		261
Colombo,	5 cks.	40	15
Hamburg,	100		45
Trinidad,	15½		11

Toluol

Rotterdam,	49 rnlts.		£218
	24 cks.		

Coal Products *(otherwise undes.)*—

Paris,	2 cks.		£25
Shanghai,		2 cs.	8

Copper Sulphate—

Lisbon,	14 t.	12 c.	£330
Marseilles,	81	15	2,077
Paris,	58	12	1,428
Varna,		18	22

Cream of Tartar—

Adelaide,		5 c.	£22
Brisbane,	1 t.	10	114
Fremantle,		5	22

Disinfectants—

Barbadoes,	4 cks.			£28
Perth,			31 pks.	38
Alexandria,			9	15
Bombay,	50			44
Durban,			100 dms.	13
Hamburg,	12		50	30

Glycerine—

New York,	25 t.	2 c.	£795

Manure—

Cape Town,	820 t.		£7,896
Rouen,	10		60
Jersey,	319		1,838
Jamaica,	30		300
Rotterdam,	49	5 c.	393
Trinidad,	40	9	275
Bombay,	1	6	45
Philadelphia,	2	3	33

Nitric Acid—

Auckland,		9 cs.	£15
Shanghai,		5 c.	7

Phosphates—

Landerneau,	108 t.		£575

Potash—

Melbourne,		5 cs.	£29

Potassium Bicarbonate—

Philadelphia,	2 t.	11 c.	£64

Potassium Cyanide—

Rockhampton,	1 t.			£110
Fremantle,	5			560
Melbourne,	1			115
New York,	6		100 cs.	1,673
Townsville,	24	16 c.	40	3,189
Durban,			160	1,717
Sydney,	4	4		848
Kalgoorlie,	10			1,143

Potassium Prussiate—

Yokohama,	1 t.	5 c.	£92

Salammoniac—

Adelaide,		11 c.	£16
Bourgas,	1 t.	15	54
Durban,	1		30
Varna,	8 cks.		32

Saltpetre—

Newport News,	13 t.	15 c.	£268
Rio de Janeiro,	2	5	46

Sheep Dip –

B. Ayres,		3,000 cs.		£6,751
Bahia Blanca,		250		563
Falkland I.,			24 dms.	24
Pt. Elizabeth,	6 t.	8 c.		106
Wellington,	5	8		150

Soda Crystals—

Colombo,	1 t.	8 c.	£12

Sodium Bicarbonate—

Suakin,	1 t.	12 c.	£13

Sodium Carbonate—

Rouen,	6 t.	3 c.	£50

Sodium Sulphate—

Barcelona,		1 brl.	6
Ghent,	60 t.		90

Strychnine—

Sydney,		1 cs.	£20

Sulphur—

Pt. Elizabeth,	21 t.	11 c.	£22
Calcutta,	1	1	7
Philadelphia,	6	11	202
Colombo,		15	6

Sulphuric Acid—

Madras,		25 cs.	£23
Amsterdam,		7	25
Durban,		10	27
E. London,		20	13

Superphosphates –

Auckland,	50 t.		£150
Adelaide,	1,200		3,411

Tartaric Acid—

Cape Town,		1 c.	£8
Auckland,		5	27
Adelaide,		5	28
Dunedin,		3	25

Washing Powder—

Sydney,	5 t.	9 c.	£100

LIVERPOOL.

Week ending November 15th.

Acetic Acid—

Dunedin,	1 t.	8 c.		£30
Lisbon,	12 cks. 2	5		29
Alexandria,		5 brls.		5

Ammonium Carbonate—

Barcelona,	1 t.			£29
Hamburg,		10 c.	1 q.	15
Gothenburg,	4	13		143
Venice,		17		23
Genoa,	1	15		50
Calcutta,		4		5
Copenhagen,	1	3		21
Vigo,		12		19
Bilbao,	1			34
Hiogo,	2	14	1	100

Ammonium Muriate—

New York,	33 t.	13 c.	2 q.	£837
Melbourne,	2	7		51
Copenhagen,	1	5		12

Ammonium Sulphate—

Alicante,	100 t.	17 c.		£1,263
Bordeaux,	26			286
Teneriffe,	5			56
Valencia,	150	9	2 q.	1,591
Gandia,	101			1,270
Genoa,	10			125
New York,	101	9		1,121
Las Palmas,	25	16		275
Leghorn,	10			120

Arsenic—

Marseilles,	5 t.	3 c.	2 q.	£100
Rouen,	5	5		99

Basic Slag—

Caen,	298 t.	12 c.	2 q.	£448
Kingston, Ja.,	10			17

Bleaching Powder—

Alicante,	12 cks		
Antwerp,	15		
Baltimore,	94		
Boston,	136		
Cambrai,	17		
Chicago,		50 bxs.	
Genoa,	17 c		
Ghent,		15 pks.	
Gothenburg,	50		
Marmisberg,	18		
Milwaukee,	157		
Montreal,	21		
Naples,	27		
New York,	26	95 brls.	
Oporto,	76		
Philadelphia,	169		
Rotterdam,	40		
Stettin,	16		
Tarragona,	5		

Blood Albumen—

New York,	2 t.		1 q.	£104

Boracic Acid—

Hamburg,	5 t.	2 c.	2 q.	£133
Havana,	1			27
Yokohama,	8	19	3	219

Borax—

Rotterdam,	19 t.	11 c.		£323
Vera Cruz,		15		11
Braila,	3			47
Montreal,	53	18		975
Sydney,	1	1	3 q.	20
Havana,	4	18	2	69
Lima,		10		8
Rangoon,		16	1	20

Calcium Carbide—

Bahia,	1 t.	10 c.	£100

Calcium Chloride

Melbourne,	5 t.	1 c.	£11
Odessa,	25	5	57
Baltimore,	13	8	25
B. Ayres,	9	19	22
Rangoon,	2	2	5
Rouen,	10	5	23

Castor Oil—

Cape C. Castle,		8 cs.	
Honolulu,			50 dms.

Caustic Potash—

Antwerp,	5 t.	1 c.	£131
Bilbao,		5	8
Hamburg,		4	5

Caustic Soda—

Alexandria,	38 dms.			
Amsterdam,	45			
Antwerp,	154			
Bahia,	40			
Boston,	210		20 bxs.	
B. Ayres,		25 cks.		
Callao,	70			
Caxias,	6			
Chicago,	50			
Copenhagen,	15			
Coquimbo,	20			
Corunna,			40 brls.	
Dunkirk,	10			
Genoa,	257			
Hiogo,	138			
Ibrail,	229			
Kobe,	72			
Malaga,	81	10		
Maranham,	10			
Montreal,	535			
La Guayra,	30			
N. Orleans,	50			
Odessa,	450			
Oporto,	30			
Palermo,	25			
Para,	28			
Pernambuco,	100			
Rotterdam,	95			
Rouen,	69			
Seville,	75			
Stettin,	104			
Stockholm,	46			
Sydney,	35			
Tampico,	47			
Tarragona,		70		
Teneriffe,	7			
Valencia,	62			
Vancouver, B.C.,	60			
Venice,	103			
Wellington, N.Z.,		7		
Wilmington,			88	

Chemicals *(otherwise undescribed)*

Barcelona,	2 t.			£80
Rio de Janeiro,	11	11 c.		44
Bourgas,	4	4	1 q.	19
Sydney,	2			10
Halifax,	5	5		28
Odessa,	3			93
Philadelphia,	14	2		351
Barcelona,	3	12		57
Venice,	1			16
Trieste,	7			35
Antwerp,	2	19	2	48
,,	2 cks.			20
Tripoli,			10 brls.	33
Constantinople,			50	177
Salonica,			7	39
Madras,	20	18	6	2,118

China Clay—

Baltimore,	310 cks.			
Boston,	1,728			
Genoa,	42			
Lisbon,		150 bgs.		
Montreal,	100			
Naples,	40			
Newport News,	391			
New York,	43	1,188	164 t.	
Pernambuco,			6	
Philadelphia,	100		50	
Rio de Janeiro,		40 brls.		

Coal Products

Aniline

New York,	2 kgs.	12 dms.	

Aniline Colour

Barcelona,	4 cks.	2 kgs.	
New York,	9		
Valleyfield, P.Q.,		14	

Aniline Salt

Bombay,		2 cs.	
Kobe,	30 kgs.		
Syra,	5		
Valleyfield, P.Q.,		64	

Anthracene

Rotterdam,		57 brls.	

Carbolacene

Calcutta,	2 t.	13 c.	2 q.	£70
Rangoon,	1	6	3	49

Carbolic Acid

Hamburg,	4 t.	13 c.	2 q.	£275
Wellington, N.Z.	2	5		36
Rouen,	5	18	3	75
Yokohama,	6	4		307
Shanghai,		3 cs.		8

Pitch

Genoa,	5 cks.		
Talcahuano,		10 brls.	

Tar

Manaos,	6 cks.	100 dms.	
Philadelphia,		100 brls.	
Sunila,		10	
Tulcea,		30	

Copper Sulphate—

Algiers,	33 t.	15 c.		£96
Rotterdam,		10		12
Catania,	6	6	3 q.	154
Bordeaux,	162	4	2	3,901
Rouen,	10	5	2	262
Nantes	21	3	2	504
Cabedello,		5		7
Palermo,	3	8	2	75
Naples,	2	9	3	58
Marseilles,	15		3	371
Hamburg,		14	2	18
Bombay,				

Disinfectants—
Iquique, 2 t. 4 c. 3 q. £7
Rangoon, 3 5
Rosario, 8 cks. 11

Dried Blood—
Teneriffe, 1 t. £8

Ethyl Chloride—
Para, 1 cs. £8

Glycerine—
Hamburg, 84 t. 16 c. 2 q. £599
New York, 59 13 2 2,268
Montreal, 21 16 3 926
Rotterdam, 58 12 1 1,225
Philadelphia, 50 2,393
Shanghai, 1 10 90
Osaka, 1 18 3 115

Magnesia—
Adelaide, 55 cs.

Manure—
Barcelona, 22 t. £115
Penang, 25 20
Santa Cruz. 20 70

Oxalic Acid—
Boston, 32 t. 16 c. 1 q. £840

Paint—
Alexandria, 153 kgs. 174 dms.
Antwerp, 156
Bahia, 8 cs.
Beira, 4 cks.
Belize, 183
B. Ayres, 89
Beyrout, 10 brls.
Calcutta, 120
Callao. 53 15 cs. 25
Cape Town, 40
Cartagena, N.G., 6
Coquimbo, 1
Colombo, 4 cks.
Demerara, 25 2
Fiume, 25
Gibraltar, 111
Havana, 1
Honolulu, 11
Kingston Ja., 3
Las Palmas, 155
Madras, 120
Manaos, { 5 / 274 cs.
Pecasmayo, 10
Payta, 2 cks.
Pernambuco, 50
Ponce, 3
Pt Natal, 4
Porto Alegre, 4 cs.
Riga, 100
San Juan, 54 5
Salaverry, 6 cks.
Sierra Leone, 345 5
Trinidad, 120
Vera Cruz, 10 cs.
Wellington, 40 7 cks.

Painters' Colours—
Alexandria, 25 cks.
Beira. 87
Candia, 5 brls.
Cardenas, 9
Colombo, 22 pks.
Constantinople, 38
Lisbon, 11
M. Video, 10 20 cs.
New York, 4
N. Orleans, 100 brls.
Toronto, 10
Yokohama, 300 kgs.

Paraffin Wax—
Boston, 50 cs
Champerico, 10 bgs.
Paranagua. 45 cks.

Phosphorus—
Kobe, 20 cs. £167
Tampico, 10 90

Potash—
Piræus, 12 c. £14

Potassium Bichromate—
Vera Cruz, 3 t. £195

Potassium Chlorate—
Gothenburg, 4 t. £122
Hiogo, 14 428
Libau, 10 303
Lisbon, 5 c. 8
Malta, 4 7
Melbourne, 5 150
New York, 16 480
Odessa, 1 22
Rotterdam, 1 28
Tampico, 2 62
Vera Cruz, 1 31

Salammoniac—
Alexandria, 7 brls. £33
Boston, 2 t. 5 c. 73
Larnaca, 2 7
New York, 7 5 2 4
Patras, 2 8 15
Rangoon, 2 3 q. 6

Salt—
Anamaboe, 5 t.
Antwerp, 201 9 c.
Baltimore, 280
Bayin, 5
Boston, 580
Brunswick, 438
B. Ayres, 70
Calcutta, 2 000
Cape Town, 1 12
Chicago, 245
Conakry, 19 14
Ghent, 116
Gd. Lahou, 11 3
Halifax, 200
Kingston, Jam., 29 10
Lagos, 139 10
Manaos, 15 15
Melbourne, 25
Montreal. 475 15
Newport News, 65
New York, 100
Old Calabar, 20
Para, 278 2
Pelotas, 88 8
Rotterdam, 160
Quebec, 34 10
Rio de Janeiro, 2 3
Santiago de Cuba, 10
Sherbro, 490
Sierra Leone, 103
Sinoe. 9 16
Sydney, 107
Trinidad 8

Salt Cake—
Seville, 4 t. £7

Saltpetre—
Bahia, 2 t. 4 c. £36
Havana, 9 1 q. 16
Maceio, 9 3 10
Paita, 6 6
Para, 1 5 28
Porto Alegre, 15 16
Tampico, 1 2

Sheep Dip—
Adelaide, 2 t. 3 c. 2 q. £31
B. Ayres, 4 2 2 213
Dunedin, 2 4 58
M. Video, 2 16 1 90
Wellington, 4 4 1 116

Soap—
Acrra, 300 bxs.
Alexandria, 125
Algoa Bay, 40 cs.
Amboina, 500
Antwerp, 600
Axim, 250
Banda, 100
Barcelona, 40 pks.
Beira, 50 cs.
Boma, 58
Bombay, 515 2 78 dms.
Boston, 10 brls. 1 ck.
Calcutta, 18
Callao. 10
Canaria, 876
C. C. Castle, 300
Cape Town, 2,850
Chama 150
Conakry, 145
Constantinople, 203 6 cs.
Curacao, 225
Demerara. 1 400 25
E. London. 1,750 49
Fremantle, 1,100
Gibraltar, 430
Gothenburg, 400
Hong Kong, 400
Isles de Los, 50
Lagos, 476
Las Palmas, 62
Lisbon, 1
Madras, 35
Malta, 50
Manaos, 1,750
Mannheim, 1,832
Melilla, 100
Monrovia, 56
Montreal, 1,200 50 dms
Mossel Bay, 50
New York, 84
Old Calabar, 2,456
Ottawa, 700
Panama. 1
Para, 5 0 250 bdls.
Penang 29
Pt. Natal, 100 70
Pram Pram, 50
Rangoon, 25
Rotterdam, 25 279
Shanghai, 3,002
Sherbro. 78
Singapore, 1
St. John's, N'fd., 431
St. Vincent, 20
Surinam, 25
Teneriffe, 112
Toronto, 1,025
Valparaiso, 4 cks.

Soda—
Callao 227 cks.

Soda Ash—
Amsterdam, 500 kgs.
Baltimore, 2,674 bgs.
Barcelona, 184 cks.
Beyrout, 20 brls.
Bombay, 7
Boston, 3,918 72 tcs. 36
Brazil, 10
Calmar, 100
Copenhagen, 160
Genoa, 20
Gothenburg, 50 110
Hiogo. 239
Hong Kong, 13
Karachi, 38 brls.
Kobe, 124
Leghorn, 22
Lisbon, 22
Melbourne Bay, 32
Mollendo, 25 tcs.
Newport News, 34
New York, 2,034 94 12
Odense, 280
Oporto, 5
Para, 5 brls.
Patras, 26
Philadelphia, 1,880 14 tcs.
Rotterdam, 1,068
Salonica, 60 brls.
Stockholm, 100
Smyrna, 20
Sydney. 246
Vancouver, 200

Soda Crystals—
Cephalonia, 10 brls.
Gibraltar, 20
Malta. 150
New York. 140 cks.
Philadelphia, 140

Sodium Arseniate—
Boston, 20 cks.

Sodium Bicarbonate—
Antwerp, 80 kgs. 14 cks.
Barbadoes, 100
Bombay, 390
Cape Town, 40
Catania, { 10 bgs. / 70 kgs. 2
Cartagena, N.G. 50
Copenhagen, 15
E. London, 20
Genoa, 290
Gothenburg, 20
Iquique, 20
Karachi, 540
Kingston, Jam., 4
Melbourne Bay, 435 18
Piræus, 10
Rangoon, 20 bgs. 6
Salonica, 20 kgs.
Stettin, 30
Sydney, 905
Tampico, 20
Trinidad, 30
Yokohama, 150

Sodium Bichromate—
Syra, 3 cks.

Sodium Carbonate—
Boston, 56 brls
New York, 84
Zanzibar, 5

Sodium Chlorate—
Boston, 50 kgs.

Sodium Hyposulphite—
San Francisco, 50 kgs.

Sodium Silicate—
Kingston, J , 10 brls.

Starch—
Copenhagen, 10 cks.

Sulphur—
Boston, 131 t. 2 c £560
Demerara, 7 5 2 q. 44
Gothenburg, 100 2 430
Guayaquil, 18 6
New York, 1 18

Superphosphates—
Adelaide, 425 t. £1,987
Alicante 100 1 c. 218

Varnish—
Antwerp, 3 bls.
Bilbao, 4 pks.
Bombay, 29 cs.
Colombo, 1
Demerara, 7 dms.
Gibraltar, 9 pks.
Madras, 5
Para, 2
Pernambuco. 5 dm
White Lead—
Bahia, 50 kgs.
Calcutta, 86 pk
Corfu. 1 ck.

Zinc Chloride—
Ghent, 2 t.
Montreal, 11 12 c.

MANCHESTE

Week ending November 15t

Ammonium Sulphate—
Montreal, 44 bgs.

Caustic Soda—
Tunis, 3 dm

Chemicals (*otherwise unnam*
Antwerp, { 3 cks. / 17 kgs.
Alexandretta, 60 brls.
Beyrout, 10
Mersyne, 116

Coal Products—
Aniline Oil
Antwerp, 4 dr
Hamburg, 10
Aniline Salts
Rotterdam. 1 kg.
Carbolic Acid
Antwerp, 25 cks.
Naphthol
Antwerp, 3 brls.
Naphthylamine
Hamburg, 66 bgs.
Pitch
Antwerp, 116 t. 19 c.

Copperas—
Alexandria, 167 brls.

Cottonseed Oil—
Larnaca, 2 brls.
Tripoli, 10

Farina—
Rotterdam, 40 sks.

Gamma Acid—
Hamburg, 12 cks.

Glue—
Germany. 10 cks.

Glycerine—
Hamburg, 20 crbys.

Linseed Oil—
Alexandria, 5 brls.
Larnaca, 2
Limassol, 2

Oxalic Acid—
Bushire, 2 cs.

Paint—
Limassol, 1 ck.

Potassium Bicarbonate—
Bushire, 6 cs.

Salammoniac—
Bagdad, 10 brls.
Beyrout, 10 cks

Salt—
Montreal, 6,400 sks.

Soap—
Alexandria, 50 bxs.

Soda Ash—
Toronto. 3,530 bgs.

Sodium Bicarbonate—
Beyrout, 10 kgs.
Tunis, 20

Sodium Naphthionate—
Germany, { 17 kgs. / 15 cks.

Sulphalumine—
Montreal, 48½ tcs.

Turpentine—
Alexandria, 10 brls. 98 dm
Limassol, 1

GLASGOW.

Week ending November 16th

Alkali—
Dunedin. 2 t. 11 c.

Ammonium Carbonate—
Christiania, £2
Stockholm, 140

Ammonium Sulphate—
Barcelona, 20 t. 5 c.
Demerara, 500
Hamburg, 50 16
Santander, 15
Trinidad, 11 1 3 q.
Valencia, 287 17 3

ng Powder—
30 t. 3c.
£15 18.
15
Soda—
3 t. 12 c.
£35
ls *(otherwise undescribed)*
94 t. 14 c. 2 q.
£9
63
ducts—
e Dye
£30
ne
£163
ote Oil
£2,395
73
£215
49 10s.
2,631
23
1,032 t. 11 c.
240
55
1,029
£98
2 t. 7 c.
175
£92
20
10 t. 15 c.
£227
(otherwise undes.)—
£493
160
£105
25
46
42
145
ls—
£17
£49
21
£254
cid —
£35
ack—
£48
10 t. 18 c.
Oil—
1 t. 2 c
18 1 q
3 15 3
1
16 2
£116 10s.
um Sulphate—
4 t. 2 c.
10
£62
19 c. 3 q
55 t.
Acid—
£25
id—
£410
£35
£30 15s.
145
21
1 1
55
1 t. 10 c.
Colours—
£41
324
80
7 18s
151
149
50

Paraffin Wax—
Barcelona, £470
Bilbao, 60
Bombay, 112
Demerara, 64
Fiume, 155
France, 154 10s.
Italy, 1,167
Leghorn, 64
Paris, 21
Rouen, 24 10
Stockholm, 75
Trieste, 275
Valencia, 150
Venice, 23 17
Potassium Bichromate—
Adelaide, 1 t. 1 c.
Amsterdam, £108
Antwerp, 35
Barcelona, 403
Brussels, 46
Melbourne, 33
Montreal, 172
N. Zealand, 20
Oporto, 40
Paris, 601
Rotterdam, 11
Rouen, 33
Stockholm, 288
Toronto, 171
Potassium Cyanide—
Taltal, £410
Potassium Muriate—
Valencia, 110 t.
Saltrock—
Trinidad, 31 t. 2 c.
Sheep Dip—
Dunedin, £90
N. Zealand, 490
Soap—
Bombay, 10 t. 18 c. 1 q.
E. London, 2 4 2
Rangoon, 2 19 3
Soda Crystals—
Calcutta, 12 c.
Sodium Bichromate—
Amsterdam, £141
Antwerp, 19 c. 1 q.
Barcelona, 12 2
Brussels, 3 11 2
Paris, 2 12 3
Rouen, 5 3 3
Starch—
Barcelona, £30
Sulphuric Acid—
Bombay, £840
Rangoon, 399
San Fernando, 20
Superphosphates—
Adelaide, 200 t.
Tallow—
Oporto, 41 t. 3 c.
Rotterdam, 5 5
White Lead—
Delagoa Bay, £64

HULL.

Week ending November 11th.

Alkali—
Stettin, 134 bgs.
Bleaching Powder—
Odessa, 16 cks.
Stettin, 20
Borax—
Christiania, 1 cs.
Chemicals *(otherwise undescribed)*
Alexandria, 100 cks. 10 crbys.
Amsterdam, 6
Antwerp, 30
Christiania, { 4 1,285 lbs. 4 cs.
Copenhagen, 20
Danzig, 31 1 7 pks.
Drontheim, 12
Gothenburg, 4 85
Hamburg, 10 220
Helsingfors, 8 10
New York, 6
Norrkoping, 10
Odessa, 171 6
Rotterdam, 5 225
Rouen, 20
Stettin, 16 72
Stockholm, 2
Coal Products—
Pitch
Antwerp, 145 t.
Christiania, 10 cks.
Dunkirk, 243 t.
Tar
Alexandria, 10 cks.
Amsterdam, 6
Antwerp, 25
Bremen, 3
Copenhagen, 20
Dunkirk, 30
Rotterdam, 15
Cottonseed Oil—
Amsterdam, 45 t. 13 c.
Antwerp, 10 10
Gothenburg, 20
Hamburg, 65 4
Harlingen, 5
Rotterdam, 45 18
Rouen, 17 7
Stockholm, 11 15
Dyestuffs *(otherwise undescribed)*
Copenhagen, 1 cs.
Dunkirk, 70 bgs.
Stettin, 60 bls.
Glue—
New York, 55 cks.
Linseed Oil—
Amsterdam, 7 c.
Christiania, 1 t. 15
Christiansand, 1 15
Copenhagen, 13 10
Hamburg, 1 15
Rotterdam, 5 1
Stavanger, 18
Manure—
Amsterdam, 20 cks.
Dunkirk, 98 t.
Stockholm, 3 bgs.
Paint—
Amsterdam, 15 cks.
Painters Colours—
Alexandria, 80 cks.
Antwerp, { 21 4 cs. 45 pks. 42 dms.
Bremen, 13
Copenhagen, 3 30
Drontheim, 1
Ghent, 3 1 23
Hamburg, 2 1
Helsingfors, 102 3 3 pks.
Konigsberg, 40
New York, 40
Odessa, 30
Rotterdam, 7
Rouen, 23
Stettin, 6 1
Stockholm, 3 2 dms.
St. Petersburg, 1
Soap—
Ghent, 24 pks.
Tallow—
Gothenburg, 3 cks.
St. Petersburg, 43
Varnish—
Antwerp, 3 cs
Bremen, 2 cks.
Hamburg, 7

TYNE.

Week ending November 11th.

Alkali—
Amsterdam, 6 t. 6 c. 2 q.
Gothenburg, 5 5 3
Hamburg, 10 2 2
Riga, 24 5 1
Rotterdam, 2 7 2
Ammonium Muriate—
Gothenburg, 15 c. 2 q.
Antimony—
Riga, 5 t.
Rotterdam, 5
Barium Binoxide—
Hamburg, 5 t. 6 c. 3 q.
Barium Carbonate—
Hamburg, 300 t.
Bleaching Powder—
Amsterdam, 15 t. 11 c 2 q.
Antwerp, 25 14 1
Copenhagen, 1 12
Gothenburg, 195 11 1
Hamburg, 20 6 1
Helsingfors, 40 2 2
Riga, 27 14 1
Rotterdam, 2 2
Bones—
Dunkirk, 15 t. 1 c. 2 q.
Caustic Soda —
Antwerp, 9 t. 17 c. 1 q.
Helsingfors, 4 13
Coal Products—
Carbolic Acid
Aalborg, 12 c. 1 q.
Rotterdam, 5 t. 16
Naphtha'ene
Riga, 30 t. 15 c. 3 q.
Colours—
Hamburg, 1 ck.
Fluor Spar—
Gothenburg, 100 t. 2 c.
Litharge—
Amsterdam, 11 c. 3 q.
Hamburg, 9 t. 13 2
Riga, 30 2 3
Magnesia—
Antwerp, 9 c. 1 q.
Hamburg, 2 t. 6
Paint—
Amsterdam, 10 c.
Antwerp, 7 t. 2
Bergen, 5 dms.
Copenhagen, 1 7
Painters' Colours—
Terneuzen, 602 lbs. 8 dms.
Red Lead—
Antwerp, { 4 cks. 3 t. 4 c. 2 q.
Christiania, 7 1 2
Copenhagen, 2 19 2
Gothenburg, 5 4 3
Hamburg 41 19
Helsingfors, 1 11
Soda—
Rotterdam, 15 t. 4 c. 2 q.
Soda Ash—
Gothenburg, 63 t. 16 c. 3 q.
Hamburg, 30 3
Helsingfors, 6 10 2
Sodium Silicate—
Gothenburg, 2 t. 11 c.
Sodium Sulphate—
Aalborg, 23 t.
Antwerp, 60
Christiania, 150
Gothenburg, 206 2 c.
Helsingfors, 3 3 1 q.
Gamleby, 195
Moss, 349
Sulphur—
Christiania, 50 t.
Gothenburg, 110
Riga, 125
Terneuzen, 6 1 c.
Varnish—
Terneuzen, 1 tin
White Lead—
Copenhagen, 11 c.

GOOLE.

Week ending November 8th.

Caoutchouc —
Boulogne, 3 cks.
Chemicals *(otherwise undescribed)*
Antwerp, 8 dms.
Hamburg, { 7 crbys. 50 cks.
Rotterdam, 40 6
Coal Products *(otherwise undes.)—*
Amsterdam, 39 cks.
Boulogne, 57
Ghent, 1
Hamburg, 1 15 dms.
Rotterdam, 278
Coal Products—
Pitch
Antwerp, 951 t.
Dyestuffs *(otherwise undescribed)*
Antwerp, 50 cks.
Ghent, 3
Manure—
Hamburg, 279 bgs.
Rotterdam, 89
Painters' Colours—
Antwerp, 5 cs.
Ghent, 8 cks. 3 tins

GRIMSBY.

Week ending November 11th.

Alkali—
Dieppe, 4 cks.
Chemicals *(otherwise undescribed)*
Dieppe, 1 cs.
Coal Products *(otherwise undes.)—*
Dieppe, 227 cks, 3 cs.
Painters' Colours—
Antwerp, 4 cks. 12 pks.
Hamburg, 1
Rotterdam, 5 kgs. 2 pks.

PRICES CURRENT.

WEDNESDAY, Nov. 22, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	6/6 & 8/9		
,, Glacial ,,	35/-		
Arsenic S.G. 2,000° ,,	1	2	6
Fluoric per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	1	3
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	5	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	17	6
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¼
,, Muriate per ton	23	10	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	40/- & 38/-		
,, Nitrate per ton	32	10	0
,, Phosphate per lb.	0	0	5
,, Sulphate (grey) London per ton	11	5	0
,, ,, (grey) Hull ,,	11	2	6
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,, ,,	0	0	4¼
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	6	12	6
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/- to 60/-		
Bleaching Powder, 35 % nett ,,	6	0	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	12	15	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	7	6
China Clay (at Runcorn) in bulk ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¼
Magenta ,,	0	3	9
Anthracene, 30 % A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	9¾
,, 50/90 ,, ,,	0	0	10¾
Carbolic Acid (crude 60°) ,,	0	2	4
,, (crystallised 40°) per lb.	0	0	8¾
,, (liquid 95/97%) per gallon	0	1	2
Creosote (ordinary) ,,	0	0	3¾
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	11	0
Solvent Naphtha, 90% at 160° per gallon	0	1	3½
Copper per ton	75	12	6
,, Sulphate ,,	25	0	0
,, Oxide (copper scales) ,,	68	0	0
Glycerine (crude) 80% ,,	33	10	0
,, (distilled S.G. 1260°) ,,	51	10	0
Iodine nett, per oz.	0	0	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	18	15	0
,, Litharge Flake (ex ship) ,,	20	0	0
,, Acetate (white ,,) ,,	23	15	0
,, ,, (brown ,,) ,,	20	0	0
,, Carbonate (white lead) pure ,,	23	10	0
,, *Nitrate* ,,	22	10	0
Lime, Acetate (brown) (ex ship) per ton	6	2	6
,, ,, (grey) (ex ship) ,,	9	2	6
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	13	10	0
,, Sulphate (Epsom Salts) ,,	2	12	6
Manganese, Sulphate ,,	14	15	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	19	10	0
Linseed ,,	24	10	0
Stearine ,,	27	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	3½
,, Carbonate, 90% (ex ship) per ton	18	0	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % per ton	25	0	0
,, ,, ,, 75/80 % ,,	21	10	0
,, Potash Hydrate Liquid 50 % ,,	13	10	0
,, Nitrate (refined) ,,	20	10	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	7½
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,,	9	0	0
Silver (metal) per oz.	0	2	3 5/16
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. works)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,, ,,	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,, ,,	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,, ,,	4	7	6
,, ,, (Soda Crystals) ,, ,, ,,	2	15	0
,, Acetate (ex-ship) ,,	14	0	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¾
,, Borate (Borax) nett per ton	16	0	0
,, Bichromate ,, per lb.	0	0	2¾
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,,	9	10	0
,, ,, (70 % Caustic Soda) ,, ,, ,,	9	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,,	8	0	0
,, ,, (pure liquor 90° Tw.) ,, ,, ,,	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) ,,	6	12	6
,, Hyposulphite ,,	5	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool ,, per cwt.	0	7	9
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	10	0
,, Prussiate ,, per lb.	0	0	5½
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % ,, per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	7	0
,, ,, (Glauber's Salts) ,,	1	10	0
,, Sulphide (crystals) ,,	6	10	0
,, Sulphite ,,	5	15	0
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4¼
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	7	5	0
,, (Roll Brimstone) ,,	6	2	6
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	28	0	0
Tin Crystals per lb.	0	0	10½
,, English Ingots per ton	128	10	0
Zinc (Spelter) ,,	20	10	0
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	10	0

THE

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AND

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LATE ADVERTISEMENTS.

WANTED, back vols. or sets of "Chemical News," "Chemical Soc. Journal" "Nature," "Knowledge," "Philosophical Magazine," Scientific Journals and Periodicals, Natural History Works, etc.—Hall, Chapel Place, Tunbridge Wells.

CHLORIDE OF MAGNESIUM.—Cheap Process Wanted for making direct from raw material readily obtainable or producing as a Bye-product.—Write, "Magnesium 54," *Chemical Trade Journal* Office, Manchester.

HYDROCHLORIC ACID (Tower Salts).—Advertiser would rent small Plant or join in the manufacture. Could influence business.—Particulars in confidence to "Tower 54," *Chemical Trade Journal* Office, Manchester.

Notices.

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

Advertisements.

Prepaid Advertisements of Situations Vacant, Premises on Sale or To be Let, Miscellaneous Wants, and Specific Articles for Sale by Private Contract are inserted in the *Chemical Trade Journal* at the following rates:—

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Trade Advertisements, Announcements in the Directory Columns, and all Advertisements not prepaid, are charged at the Tariff Rates, which will be forwarded on application.

Advertisements intended or insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

CURRENT TOPICS.

THE PRICE OF SALT.

A PARAGRAPH has been going the round of the press, evidently as a feeler, to find out the price which outside makers are willing to pay for their salt supplies for next year. Several contracts have been made over 1900 at a reported price of 7s. 6d. per ton, at which price the salt makers should do very well. Even when fuel was higher than it is to-day, some salt makers reckoned they could produce salt at a profit when selling at 6s. a ton, including the expenses of management and charges for depreciation, and it is on record that contracts were made over the last two years at 5s. 7d. per ton delivered to the users' works—a price which the sellers regarded as leaving them ample profit.

A statement has been made that the Union are asking 8s. 6d. to 9s. 6d. per ton at the works for future contracts over 1900 in order to recoup themselves for extra charges on fuel. This may be regarded as ominous. It is certainly not to be overlooked that the salt boiling industry has gone on in the old-fashioned way for centuries, and cheap salt is only to be obtained by better attention to the possibilities of fuel economy.

It is nearly time the outside makers combined to secure supplies of salt for themselves, untrammelled by conventions with other parties, and employed means to get as much work as possible from the fuel burnt by means of modern appliances. A straw will show the direction of the wind, and whereas last week we recorded the fact that the Barrow works had declined to join the British Salt Association, it seems significant we should learn that at the close of a further lengthy and representative meeting of the Association, held on Wednesday, it was officially announced that all the Carrickfergus and Barrow salt companies had resolved to join the Association, leaving no firm outstanding. The combine is, therefore, an accomplished fact, and will doubtless come into operation at an early date. The agreement will probably be signed next week.

SAUCE FOR THE GOOSE IS——.

During the last month or so, manufacturers who have the honour, or misfortune, to own chemical works in the neighbourhood of Manchester, have been summoned by the Sanitary Committee of the Manchester Corporation for creating a nuisance by the emission of noxious vapours. Several of these summonses have been heard, and others adjourned for various reasons, but in all of them the judgment of the Stipendiary has, at present, been reserved. It is not our intention, at this moment, to discuss the *pros* and *cons* of the question of suppressing these alleged nuisances by means of summonses under the Public Health Act, since there are several ethical and judicial reasons for our not doing so. We have, however, been watching the issue of the summonses against chemical manufacturers with con-

siderable interest, because it is not only private manufacturers who carry on noxious processes, but the Corporation itself indulges in a similar luxury; and seeing that the "odour of sanctity," which characterises the Holt-town district, is as pronounced as that which prevails in Crumpsall, Miles Platting, and elsewhere, we were curious to see whether the Sanitary Committee treated the Cleansing Committee to a helping to the same sauce as they served to chemical manufacturers. We will not say that we are *not* pleased to see that they have done so, because if atmospheric pollution is to be stopped by Police Court proceedings, it is immaterial whether the offenders are private individuals or officials of the Corporation. If anything, we are inclined to think that an official offence of this nature is more reprehensible than one committed by a patient ratepayer. At all events, he only imitates the example set him by his mentors—the City Fathers.

We are fully alive to the difficulties with which the Cleansing Department have to contend, and of the good work it achieves by means of its objectionable works. Nevertheless, if the matter is to be put upon a legal footing, it is only fair that both private and corporate bodies should be acknowledged to be tarred with the same brush. We notice that the summons has been adjourned to the 23rd of March next. Thus, the Corporation will be able to put their house in order before the works are subjected to the prying eyes of searchers for evidence. The earlier victims were not quite so fortunate.

NICKEL DEVELOPMENTS.

For some time past—years we might say—a good deal has been heard concerning the prospect opened up by the development of the nickel ore deposits in New Caledonia and Canada. Quite recently these rumours crystallised, and the flotation of the Nickel Corporation, Ltd., was the result.

There is no doubt that the modern discoveries made in connection with the manufacture of armour-plates and the world-wide growth of the bicycle and allied trades, have raised the statistics of nickel consumption from the level of mere statistical curiosities to that of industrial interest.

We think it wise, however, to remind those interested in the refining of nickel that the development of these deposits under the fostering care of this Corporation will be of limited service to our home refiners, unless they are prepared to start works *in situ*. The explanation of this is to be found in the announcement that the Ontario Government has passed an order making it a condition of future patents for copper or nickel land that neither ore nor matte shall be exported from Ontario. The effect of this order upon the industries of the Province will be far reaching, and may result in the establishment in Ontario of extensive works for the production of nickel to be used in building warships for the British navy. Moreover, this effect will be heightened if our Admiralty accept the offer of the Canadian Government, and acquire the remaining unpatented deposits.

Personal.—Mr. Ernest Lawrence, 56, City-road, Birmingham, will in future represent Messrs. Thomas Hedley and Co, Ltd., soap manufacturers, Newcastle-upon-Tyne, in Birmingham.

Werner, Pfleiderer and Perkins, Ltd.—We have received an elegantly got-up and artistically-printed catalogue of the mixing, sieving, and kneading machines made by this firm for the use in the chemical and pharmaceutical industries. It also contains particulars of specialities for the manufacture of cordite, india-rubber, linoleum, and other chemical manufactures. It is to be obtained from 117, Queen Victoria-street, E.C., or the branch offices at Manchester, Bristol, and on the Continent.

Official Memoranda.

(From the Board of Trade Journal).

THE MINING INDUSTRY OF GREECE.

Great activity prevailed in the mining and engineering industry of Greece during the year 1898. The mining industries, generally speaking, are chiefly carried on so far on the small islands of the Cyclades and near the coast lines, places whence the transportation of the ores can be effected by the most simple means. The Greek Government, in order to encourage the development of the mining industries, has recently granted a large number of mines concessions. While during the period from 1882 to 1891 no concessions were granted at all, and from 1891 to the end of 1898 only five concessions were granted, during the first six months of the present year 36 concessions have been granted, chiefly for iron ore, manganese ore, argentiferous lead, zinc, copper ores and coal.

The following table shows the production of the Greek mines in 1898 and 1897. Brown coal, plaster of paris, sulphur, talc and commercial lead were entirely consumed in the country itself; salt, also, was almo t entirely taken by the home market; only 280 tons were exported to the island of Crete. Millstones and Pozzolana earth and all other products were shipped abroad. The production was as follows:—

	1897. Tons.	1898. Tons.
Iron ore	260,828	287,100
Manganiferous iron ore	182,850	213,938
Manganese	11,868	14,097
Zinc blende	3,118	1,139
Calamine, roasted	22,817	30,906
Chrome ore	563	1,367
Magnesite, raw	11,311	14,829
Magnesite, calcined	686	129
Magnesite, bricks	826	516
Emery	3,024	2,932
Salt	20,421	25,250
Lignite	20,018	17,300
Pozzolana earth	42,600	70,700
Lead dust	2,785	2,655
Argentiferous lead	15,946	18,888
Commercial lead	520	305
Graphite	2,815	—

The value of the total production in 1898 increased by about £100,000. over that of the previous year.

EXPORTS OF TARTARIC MATERIALS FROM ITALY.

The following statement shows the quantities and value of tartaric material exported from Italy in the 12 months ending 30th September, 1899.

Quality.	Exported to.	Quantity. Tons.	Value. £
Half refined tartar ..	United States ..	6·5	74,550
	Great Britain ..	311·5	
	Germany	421·5	
	France	162	
	Other countries ..	423 5	
Vinaccia argols	United States ..	759	138,600
	Great Britain ..	1,350	
	Other countries ..	582	
Crude argols	United States ..	1,394	78,300
	Great Britain ..	140	
	Germany	150	
	Other countries ..	180	
Winelees	Great Britain ..	744	29,450
	Germany	300	
	France	96	
	Other countries ..	1,315	

The River Weaver.—Last week at the annual meeting of the River Weaver Trust at Northwich, the year's receipts were reported as nearly £45,000, or a decrease of £1,700. The expenditure was £43,000 The river had carried 1,234,000 tons of goods, representing an increase of 92,000 tons. The tolls decreased £621., chiefly owing to the reduction of 23,000 tons of chemical cargo. The unique electrical bridges were favourably reported on. Three hundred and fifty thousand pounds had been spent in Weaver improvements within 30 years.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Manufacture of Carbonate of Magnesia. W. and J. Marsh. 22,576. November 13.

Gold from Refractory Ores. J. Diether and M. Merz. 22,619. November 13.

Chemical Generator of Electricity. E. L. Anderson. 22,666. November 14.

Treating Distillers' Wash. C. Sudre and C. V. Thiery. 22,706. November 14.

Electrolytic Extraction of Zinc. H. H. Lake. 22,710. November 14.

Explosives. C. E. Bichel. 22,712. November 14.

Bleaching Sugar Juices. I. Kitsee. 22,715. November 14.

Artificial Stone. J. T. Szek. 22,759. November 15.

Digesting and Concentrating or Drying Organic Substances. A. Totte. 22,787. November 15.

Manufacture of Lead Peroxide and its Application to Electrical Storage Batteries. H. Beckmann. 22,817. November 15.

Manufacture of White Lead. J. A. de la Fontaine. 22,818. November 15.

Batteries for the Generation of Ozone and for like Purposes. C. A. Sahlstrom. 22,832. November 15.

Kiers for Bleaching and Dyeing Purposes. W. W. L. Lishman, T. W. Houghton, J. J. Kirkpatrick, and The Lishman Process Bleaching Co., Ltd. 22,927. November 17.

Vessels Used for Concentrating Liquids by Heat. W. Chattaway. 22,972. November 17.

Improvements in Centrifugal Machines. J. Laidlaw and J. W. MacFarlane. 22,994. November 18.

Defecating Cane Juice during the Manufacture of Sugar. R. A. Robertson. 22,995. November 18.

Treatment of Lead Ores. A. Germot. 23,014. November 18.

Purification of Brine. J. Nicolaas Vis. 23,024. November 18.

Secondary Batteries. W. Schlothauer. 23,033. November 18.

Apparatus for the Electrolysis of Alkali Chloride Solutions. A. J. Boult. 23,040. November 18.

Air Compressors. F. W Scott and W. Harrison. 23,056. November 18.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in Apparatus for use in the Concentration of Sulphuric Acid. J. W. Fisher, J. A. Hall, and F. Moore, all of Erie-st., Victoria, British Columbia. Eng. Pat. 27,376. December 28, 1898.

A series of cast or malleable iron pipes are built into a rectangular brick furnace, the acid becoming concentrated during its passage through the pipes. Outlets for vapour are provided at the end of each pipe, these outlets being connected with condensing appliances. The ends of the pipes where the necessary connections and outlets are made, are of a special section. There are four figures illustrating the plant as a whole and the essential details. Dimensions are given. The feed acid should not be below 1·7 specific gravity.

Improvements in the Manufacture of Nitrogen Compounds. Dr. A. Frank, 80, Liebnitzstrasse, Charlottenburg, and Dr. N. Caro, 1, Roonstrasse, Berlin. Eng. Pat. 25,475. December 2, 1898.

Carbides or carbide forming mixtures are treated with nitrogen or gaseous compounds containing it, such as ammonia, for the production of cyanides. Taking as an example carbide of barium, the finely-powdered material is heated in muffles or retorts to about 700°C. Pure dry nitrogen is then passed over the mass till there is no further absorption. The cyanides are obtained by subsequently melting, after the addition of caustic soda or some other suitable flux. Minor modifications of the treatment are detailed.

A New or Improved Process for Removing Scale from Boilers. E. H. Hopcroft, Farfield, Kidderminster. Eng. Pat. 20,718. October 1, 1898.

The boiler is emptied and coupled to the cold air supply of a small refrigerating plant. In this way the temperature of the boiler shell is reduced to about 25°F. The whole is allowed to come back to the temperature of the air, and this alternation of temperatures continued until the scale is loosened. There are two figures illustrating a modified ammonia refrigerator, which is adapted to the requirements of this method.

Improvements in Treating the Liquors resulting from the Manufacture of Cellulose or Fibres by the Sulphite Process in order to obtain Useful Products therefrom. C. D. Ekman, 57½ Old Broad-street, London Eng. Pat. 189. January 4, 1899.

The waste liquors are heated in acid-resisting vessels to 80° or 90°C., and an excess of zinc oxide added, so that the liquors give a distinctly alkaline reaction with litmus paper. The clear liquor is separated from the precipitate, and evaporated (preferably in a vacuum), when a thick liquid is obtained, which can be used as a substitute for dextrine in sizing and stiffening. The temperature must not be high enough to injure the colour. Instead of adding zinc oxide it may be precipitated by the addition of a soluble zinc salt and soda ash. Zinc carbonate (precipitated) may be used, but its action is slower than that of the oxide. One or two economising details are also described.

An Improvement in the Manufacture of Cement. J. Steiger, 24, Finsbury-square, London. Eng. Pat. 18,483. August 29, 1898.

Solutions of silicate of soda or potash and magnesium chloride are added to each other in the proportion of their chemical equivalents. When the inter-reaction is finished the mixture is evaporated to dryness and powdered. Finely-powdered magnesia is also prepared by calcining magnesite, and the two powders are then well mixed together. This cement does not become deliquescent on exposure to the air, but sets with remarkable strength when mixed with water.

NATURAL COKE IN MEXICO.

DURING explorations made for the Southern Pacific Co. in the early part of this year, deposits of natural coke, of such extent and excellent quality as to be worthy of record, were found in the Santa Clara coal-field. This coal-field lies in the neighbourhood of La Barranca, a small town 95 miles north-east of Ortiz, on the Sonora Railway. The coal beds are exposed in the drainage basin of Calera Creek, which empties into the Yaqui River opposite Toniche, and the old mining town of Tarahumari is nearly in the centre of the field.

Without going into a detailed geological description it will be sufficient to say that the entire area is underlain by rocks of Triassic age, much disturbed in places, and cut through and covered by eruptive rocks of various kinds and ages. The coal beds occur in a series of interbedded sands and clays in the upper half of the sedimentary Triassic rocks.

In the search for coal out-crops on Calera Creek, a fragment of coke was found, and tracing it up revealed a small bed of impure coke at the mouth of the El Tren, one of the principal tributaries of that stream. A few days later, one of the prospect-slopes, driven on a supposed out-crop, opened out into a body of three feet of good coke, underlain by two feet of anthracite.

Later still, while prospecting a creek somewhat over a half-mile west of the last, the gophers had brought out some coal dust and men were put to work on it. Within ten feet it opened into a good body of coke, which at thirty feet depth was eight feet thick, and at 130 feet depth was over ten feet thick.

Besides these two principal openings, which subsequently proved to be in the same bed, several other deposits, with thickness of from two to four feet, have been located. It is possible that the coke is not entirely due to the effect of igneous rock. One bed of coke has no igneous rock near it; and again, at one locality, there are small pockets of coke in a 4-foot seam of anthracite. These pockets are about the centre of the seam, and are small; but the coke is of good quality.

The coke is dark-grey in colour, of even texture, with small pores (denser than most oven coke), and very firm. It breaks with very even fracture, but has in places the columnar structure of oven coke well developed.

It is an excellent fuel, burning without any sparking or deflagration. It is little or no harder to ignite than the anthracite, and burns well in an open fire, in the blacksmith forge, and in the assay furnace. The ash is white.

The value of these coke beds is largely due to the fact that the intrusives are so regularly interbedded, running for long distances in the same bed of coal slates. This gives promise of a far greater supply of coke than could be hoped for under other conditions, and gives to the deposit in this region, where there is no cooking coal of any kind, a decided commercial importance.

EXPLOSION OF ACETYLENE.—On Monday an explosion of acetylene, due to an escape, occurred at a chateau at Flemalle-Haute, Brussels, occupied by M. de Pierpont, who had established an acetylene reservoir in a small tower of his chateau. The concierge and Madame de Pierpont, entered the place with a lamp, whereupon the escaped acetylene exploded. The tower was demolished, and the concierge was killed, while Madame de Pierpont sustained severe burns.

Selected Correspondence.

SALT UNIONS.

(To the Editor of The Financial News).

Sir,—As a considerable amount of speculation seems to be going on at the present time in Salt Union shares, may I submit the following figures, taken from the company's annual report:—

	Profit for year ended	Dividends paid at per cent. Pref.	Ord.	Amount required to pay int. on debs. and divs.
Dec. 31, 1890..	£306,447 0 9	.. 7	.. 7	.... £255,000
Dec. 31, 1891..	243,911 0 5	.. 7	.. 5	 215,000
Dec. 31, 1892..	215,919 6 3	.. 7	.. 5	 215,000
Dec. 31, 1893..	176,859 15 0	.. 7	.. 3	 175,000
Dec. 31, 1894..	170,482 6 0	.. 7	.. 2½	.. 165,000
Dec. 31, 1895..	162,154 14 0	.. 7	.. 2	 161,075
Dec. 31, 1896..	145,292 12 5	.. 7	.. 1	 144,000
Dec. 31, 1897..	66,822 19 10	.. 1¼	.. nil	 66,500
Dec. 31, 1898..	32,792 4 2	.. nil	.. nil	 54,000

Last year £8,676. 11s. 6d. had to be taken from the reserve fund, in addition to £12,531. 4s. 4d. which had been carried forward from the previous year, in order to pay interest on debentures alone.

The following is the tonnage, which has been steadily decreasing for years:—

Year ended	Tons.
December 31, 1890	1,629,000
December 31, 1891	1,472,000
December 31, 1892	1,354,000
December 31, 1893	1,240,000
December 31, 1894	1,284,000
December 31, 1895	1,217,000
December 31, 1896	1,066,600
December 31, 1897	1,014,000
December 31, 1898	967,000

So far this year, according to official returns, the salt trade has fallen short of 1898 by 18,000 tons. It therefore appears to me to be an utter impossibility for there to be any dividend on this year's trading on either preferences or ordinarys.

I am, &c.,

Alsager, Cheshire. John Leek.

FOOD PRESERVATIVES.

(To the Editor of the Manchester Guardian.)

Sir,—In the evidence given before the Food Preservatives Inquiry one medical witness stated that "milk could be kept long enough, having due regard to cleanliness, without any preservative. No chemical preservative in milk was required." Another medical witness stated that "where milk had to be gathered from many districts, in summer especially, a larger amount of milk would necessarily go sour unless it was preserved in some way during transit. Milk even preserved with boracic acid was preferable to sour milk, which was responsible, he had no doubt, for a considerable number of the digestive disorders which carried off so many children, particularly in hot weather." He says also that "a small quantity of boracic acid such as was found in milk, say 1 in 1,000, and which was sufficient to preserve milk from apparent change for 24 hours, would not be hurtful to a healthy person." I cordially agree with what I have quoted in the first sentence; the significance of the passage lying in the words "having due regard to cleanliness." In many cases among sick children it is a common experience to be told that the milk disagrees. Cursory examination of it discovers nothing amiss; occasionally a slight sour smell is to be perceived; often a sediment is found at the bottom of the milk basin. Herein, I think, lies the explanation. This sediment has been found by Professor Delépine to consist of "animal and vegetable extraneous matter, evidently derived from the cow, the stable, milk-pails, cans, and inorganic particles, cells from the udder. Out of 45 specimens examined, 29 contained a large number of bacteria of various kinds." What more likely than that the presence of this dirt is the cause of souring, especially when we consider that warmth favours the multiplication of bacteria? Parker says that milk from diseased animals soon decomposes and soon becomes acid. It seems to me that the remedy here is not to disguise the badness of milk by adding boracic acid, but to remove the cause of the badness by preventing the ingress of foreign substances such as I have referred to. It is not the mere sourness of milk that does harm, but the underlying cause of the sourness.

The boracic acid in the quantity stated above can remove only the outward manifestation of what is going on below the surface, and this is to be deprecated. No doubt in some cases the deterioration of milk is due to want of proper care after it has left the dairy, such as delivering it in open cans and householders storing it in unsuitable places. In olden times it was the custom to scald milk in order to prevent souring. How does scalding act? Why, by destroying the bacteria which have gained admission. There is no reason why this should not be done now; in fact, it is to be recommended when milk is kept a long time before being used. With regard to boracic acid, we must remember that it is not a food but a medicine. The limitations admitted by those who approve of its use in preserving milk render its addition dangerous, will increase the difficulties of medical men in prescribing milk diet, and will render necessary a milk supply for children and invalids separate from that for the rest of the family, which is impracticable. Boracic acid in very moderate doses soon causes indigestion and sometimes severe pain.—Yours, etc.,

F. W. Jordan, M.D., Medical Officer of Health for Heaton Norris.

Heaton Chapel, November 27th, 1899.

Legal Intelligence.

CHANCERY OF LANCASHIRE.

MANCHESTER SITTINGS.

(Before Vice Chancellor Hall, Q.C.)

MARSDEN AND CO., LIMITED *v.* THE BURNDEN TAR DISTILLERY COMPANY, LIMITED.

On Tuesday the Vice Chancellor delivered his reserved judgment in this case (*C. T. J.*, 561, p. 316), in which plaintiffs, who carry on business as bleachers at Burnden, near Bolton, claimed an injunction to restrain the defendants, who are tar distillers at Burnden, from permitting tar or other noxious matter to flow from their works on to the plaintiffs' land or into the goit leading from the river Croal to the plaintiffs' reservoirs, or doing anything to render the water in the goit and reservoirs less pure than it was at the time the defendants established their works. Mr. Radford and Mr. Grant appeared for the plaintiffs, and Mr. Maberly and Mr. Mansfield for the defendants.

In giving judgment, the Vice Chancellor said that the defendants' works were 12ft. or 14ft. higher than the plaintiffs', and they were held in position by means of a retaining wall. The case made by the plaintiffs was that tar or tarry matter came from the defendants' works, that it oosed from the bottom of the retaining wall, that the bed of the goit was full of tar or tarry matter, and that the result was such that they had been obliged for the last twelve or eighteen months to stop taking this water for fear of injuring their goods. It was common ground that the strip of land between the defendants' premises and the plaintiffs' goit was now saturated with tar or tarry matter. It was said that the stream was fouled higher up, but that could not possibly account for the fouling of the strip of land he had referred to. The real contest in the case seemed to be where the tar in the strip of land came from. The defendants said it all arose from an accident, that in 1894 they had a fire on their premises, that there was a great upset of tar and oils, a large part of which escaped and lodged behind the wall, and that the plaintiffs themselves let it out by the holes which they dug close to the wall. The evidence was very conflicting, and he thought the contradiction had been greater than he had ever known it in a scientific case. He thought the story of the fire and the escape of tar and so forth had been very much exaggerated. The defendants said that tar could not get into the soil of their premises, that the surface was practically asphalted and impervious, but he did not believe that the whole surface was covered. He thought there were considerable portions where water would lodge and percolate, carrying with it oils and tar and tarry matter. He was satisfied that tar and tarry matter came out from the defendants' works, and was carried down until it got to the plaintiffs' premises. After going into the evidence in some detail, His Honour said he preferred the plaintiffs' witnesses to those of the defendants. Dealing with the evidence of some of the defendants' expert witnesses, His Honour observed that it was extraordinary what a number of things a skilled witness would not see when he went to a place for the purpose of giving evidence. He was satisfied that there was enough to cause the plaintiffs' serious injury if it was allowed to go on, and that they were entitled to an injunction, or to a declaration and an undertaking from the defendants to construct such drains as might be necessary.

Mr. Radford pressed for an injunction.

Mr. Maberly urged that an injunction might be used so as to interfere seriously with the defendants' business, and said his clients were willing to give an undertaking to construct any reasonable works.

The Vice Chancellor ultimately granted an injunction in the terms prayed for, but suspended it until after the Easter vacation, so as to give the defendants an opportunity of constructing such works as they might be advised.

Ironworks in Spain.—La Sociedad Hulleras de Sabero y Anexas of Bilbao proposes to establish a pig iron making plant at Vegamedians. Two blast furnaces and a large battery of coke ovens are to be erected.

OUTPUT OF BRITISH MINERALS.

OWING to the revised system of compiling these annual statistics, the returns of the mineral production of the United Kingdom for 1898 have only just been published. We give the figures for 1897 by way of comparison :—

The total value at the mines and works of the 39 minerals which the country has produced was £77,415,063., against £72,043,801. in 1897, an increase of more than five millions sterling. This increase is mainly attributable to the higher prices obtained for coal. The export of *coal* was about half-a-million tons less than in 1897, yet the total of 26½ millions is still of sufficient magnitude to cause anxiety in the minds of those who dread the depletion of our national resources. The editor of these statistics enjoins users and raisers to adopt and encourage every possible means of economising coal. The positions of *bauxite* and *alum shale* have just been reversed this year, the latter having increased. *Gold ore* and *lead ore* are both on the downward grade, though this year iron pyrites show an improvement. In the case of ores of *copper*, *tin* and *zinc* the higher prices of the metals have augmented the output, as is only natural, though this stimulus did not affect lead ore. *Iron ore* mines and quarries are increasing their production, but the total output is still about four million tons below the high-water mark figures of 1880 and 1882.

This year only 39 items are recorded, as against 43 last year. Among the deletions are :—Basalt, calc spar, quartz, plumbago, and slag, the first three being practically covered by the new comer, igneous rocks (other than granite). Of these 39 items 17 show an increase, the most notable being limestone, iron ore, wolfram and zinc ore. On the other hand 22 show a decrease, principally in salt, mica, nickel ore, soapstone and jet, the three latter having dwindled to *nil*.

Of the grand total England produced minerals worth 55 millions ; Wales 10½ millions ; Scotland 11 millions ; and Ireland ¼ million.

GENERAL SUMMARY OF THE MINERAL PRODUCE OF THE UNITED KINGDOM AND OF THE ISLE OF MAN.

Description of Mineral		1897. Quantity.	1898 Quantity.	1898 Value £.
Alum Clay (Bauxite)	Tons	13,327	12,402	2,898
Alum Shale	,,	611	13,617	1,702
Arsenic	,,	4,165	4,174	53,787
Arsenical Pyrites ..	,,	13,137	11,144	8,144
Barytes	,,	22,723	22,225	23,253
Bog Ore	,,	7,124	5,418	1,354
Chalk	,,	3,858,448	4,298,014	180,651
Chert and Flint	,,	93,710	82,057	14,513
Clays	,,	12,705,196	14,738,474	1,616,358
Coal	,,	202,129,931	202,054,516	64,169,382
Copper Ore	,,	7,132	9,001	25,849
Copper Precipitate ..	,,	220	130	1,300
Fluor Spar	,,	297	56	49
Gold Ore	,,	4,517	703	1,158
Granite and Syenite	,,	1,847,323	1,875,817	576,457
Gravel and Sand ..	,,	1,356,787	1,625,690	135,538
Gypsum	,,	181,385	196,028	71,316
Igneous Rocks (other than Granite) ..	,,	2,355,554	2,602,491	465,543
Iron Ore	,,	13,787,878	14,176,938	3,406,628
Iron Pyrites	,,	10,583	12,108	4,804
Jet	Lbs	84	—	—
Lead Ore	Tons	35,338	32,985	267,402
Limestone (other than Chalk)	,,	11,003,524	11,980,578	1,256,154
Manganese Ore ..	,,	599	231	200
Mica	,,	4,983	907	454
Nickel Ore	,,	300	—	—
Ochre, Umber, &c.	,,	14,422	19,827	13,003
Oil Shale	,,	2,223,745	2,137,993	534,498
Petroleum	,,	12	6	14
Phosphate of Lime	,,	2,000	1,550	2,713
Salt	,,	1,903,493	1,878,665	620,115
Sandstone	,,	4,964,561	5,242,115	1,632,786
Slate	,,	609,194	668,859	1,900,228
Soapstone	,,	28	—	—
Strontium Sulphate	,,	14,987	12,941	3,674
Tin Ore (*Dressed*)	,,	7,120	7,380	288,325
Uranium Ore ..	,,	30	26	1,185
Wolfram	,,	125	326	15,844
Zinc Ore	,,	19,278	23,552	117,784
TOTAL VALUES ..		—	—	77,415,063

In addition to the general summary, the returns include details of the production of the items in table I., from which we make the following selection :—The highest monthly price for best selected British *copper* in 1898 was £61. 10s., and the lowest £51. 10s. The average price for the year was £55 9s 8d.; and the corresponding figure for Chili bars was £51. 17s. 9d. The amount of *burnt cupreous pyrites* treated at the 15 extraction works in operation was 374,582 tons in 1898, and 341,403 tons in 1897, from which 13,483 and 12,289 tons of copper were extracted in the respective years ; 1,721 and 1,569 ozs. of gold ; and 299,665 and 273,122 ozs. of silver. As usual these figures are from the returns of Mr. Bird of Liverpool.

The following table shows the production of *Bauxite* (alum clay), from which about 850 tons of alumina were prepared in Ireland, at Larne (worth £15,300.), and converted into 310 tons of aluminium (worth £45,880.) at the Falls of Foyers, N.B.

Name and Situation of Mine.	Owner.	Quantity.	Value at the Mines.
IRELAND.		Tons.	£
ULSTER (Co. Antrim) :			
Cargan and Evishacrow	British Aluminium Co., Ltd.	12,402	2,898
Correen, Broughshane	Holloway and Evans ..		
Irish Hill and Straid, Ballynure ..	Bauxite Co., Ltd. ..		
Parkmore, Barard, and Essathohan ..	Antrim Iron Ore Co., Ltd.		
Tuftarney	Crommelin Mining Co., Ltd.		
Total for 1898		12,402	2,898
Total for previous Year		13,327	2,823

Table III. shows the imports of Manganese Ore from foreign countries, and the chief ports of the United Kingdom through which the ore comes. Java and Germany figure in the list this year as additions :—

Ports into which Imported.	1897. Quantity.	1897. Value.	1898. Quantity.	1898. Value.
	Tons.	£	Tons.	£
London	2,055	7,549	2,074	7,641
Liverpool	27,761	73,012	37,153	94,114
Cardiff	2,132	3,198	550	375
Chester	3,664	6,649	12,533	19,450
Fleetwood	38,260	81,447	38,099	76,041
Gloucester	21	41	12	24
Goole	1	9	11	28
Grimsby	—	—	1	6
Hartlepool	—	—	2	6
Hull	870	1,585	9	180
Manchester	1,428	2,208	2,771	5,221
Middlesbro'	49,664	100,811	41,109	87,433
Newcastle	298	1,086	230	682
Newport	29,623	67,450	16,580	41,050
Southampton	30	180	7	25
Leith	23	59	—	—
Dundee	—	—	81	400
Glasgow	494	1,871	2,700	7,425
Grangemouth	—	—	5	10
TOTAL	156,324	347,155	153,927	340,111
Countries whence Imported	Tons.	£	Tons.	£
From Russia	65,092	150,089	78,178	178,865
Germany ..	143	1,019	542	2,885
Holland ..	851	2,775	2,003	4,981
Belgium ..	214	691	50	203
France	3,241	5,984	5,183	8,298
Portugal ..	795	1,971	1,602	3,219
Spain	10,122	17,790	4,771	8,171
Italy	2,100	1,823	—	—
Greece	11,860	19,535	5,400	7,350
Turkey	10,167	23,089	8,400	18,698
British East Indies	23,623	49,092	24 481	48,803
Java	—	—	2,706	6,243
Japan	2,897	9,357	1,436	5,085
Australasia ..	—	—	8	30
Peru	6,797	19,028	1,909	5,011
Chili	8,510	20,790	8,605	20,913
Brazil	8,210	20,442	8,660	21,353
Other countries	1,702	3,680	1	3
TOTAL	156,324	347,155	153,927	304,111

The following record of imports of iron pyrites and the countries whence imported is useful :—

Year	Norway.	France.	Portugal.	Spain.	Other Parts.	Total Quantities.	Total Value
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons	£
1898	28,880	45,632	18,419	556,907	4,225	654,063	1,080,543
1897	25,882	42,433	21,056	526,311	7,409	623,091	1,021,096

The details of the production of oil-bearing shale were as follows:—

County.	Quantity.	Average Price per ton at the Mine.	Value at the Mines.
ENGLAND.	Tons.	s. d.	£
Stafford, North	266	5 0	744
York, East and West Ridings ..	2,709		
Total	2,975	—	744
WALES.			
Flint,.	1,609	5 0	402
SCOTLAND.			
Ayr	1,863		
Edinburgh	635,662		
Lanark	97,060		
Linlithgow	1,396,247	5 0	533.352
Renfrew	328		
Stirling	2,197		
Sutherland	52		
Total	2,133,409	—	533,352
TOTAL FOR 1898	2,137,993	—	534,498
Total for previous year ..	2,223,745	—	555,935

The imports of foreign Phosphate of Lime are given below. There are no changes in the sources of supply :—

Countries whence Imported	1897.		1898.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£
Holland	4,796	6,054	6,706	8,076
Belgium	64,657	83,341	68,954	95,124
France	35,107	45,110	49,238	63,045
Algeria	73,230	111,852	88,000	131,885
UnitedStatesofAmerica	134,163	218,305	105,985	179,645
Dutch West India Islands	5,523	12,334	7,415	16,652
French Guiana ..	3,820	8,790	1,200	3,600
British North America	470	1,257	972	1,903
British West India Islands	808	1,212	—	—
Other Countries ..	2,209	3,558	2,140	2,492
TOTAL ..	324,788	491,813	330,610	502,422

The figures relative to the production of *Salt* are always of interest. Table VII. gives a summary of the total production of salt, (1) as rock-salt and (2) as white salt made from brine, and salt in brine used in chemical works. Out of the grand total for 1898 there were 182,770 tons under the first heading (an increase of 692 tons on last year), and 1,695,895 tons under the second heading, a decrease of 25,520 tons.

County.	Total Quantity of Salt.	Comparison with previous Year.	Total Value
ENGLAND:	Tons.	Tons.	£
Chester and Stafford ..	1,224,298	— 8,166	427,178
Lancaster	196,488	+ 12,993	
Durham	194,379	— 30,163	87,474
Worcester	178,636	+ 2,356	80,386
York	44,649	— 274	18,567
Total for England ..	1,838,450	— 23,254	613,605
IRELAND:			
Antrim	40,215	— 1,574	6,510
TOTAL FOR 1898 ..	1,878,665	— 24,828	620,115
Total for previous Year	1,903,493	— 118,864	620,898

In the last table we have a list of the countries to which salt has been exported :—

Countries to which Exported.	1897.		1898.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£
Russia	8,161	3,951	15,084	7,088
Sweden and Norway..	21,402	12,540	22,384	12,233
Denmark	36,227	15,481	32,903	12,877
Germany	20,568	11,085	16,916	8,514
Holland	12,960	3,998	16,760	5,395
Belgium	33,511	17,456	28,458	13,580
West Coast of Africa..	37,414	43,313	41,571	45,275
British Possessions in South Africa ..	6,314	6,204	10,167	8,980
British East Indies ..	264,216	149,990	301,330	161,439
Australasia	33,981	35,230	36,515	35,724
British North America	73,989	45,690	66,599	44,784
United States of America	92,678	94,405	79,213	81,146
British West Indies ..	6,716	6,819	5,755	6,234
Foreign West Indies..	21	84	242	338
Chili	7,855	5,640	759	850
Brazil	7,425	6,197	7,497	5,807
Other countries ..	5,247	8,430	7,005	10,055
TOTAL.. ..	668,685	466,533	689,178	460,319

The summary of the mineral output of the British Colonies which we used to digest is no longer published with these returns.

Correspondence.

*** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

TUNGSTEN BLUE.

(To the Editor of the Chemical Trade Journal).

Sir,—I think "Colourman" has misread my note on this blue. Tungsten blue is not an industrially manufactured article, and so there can be no makers of it. It is the name given to a blue produced on pottery from a mixture of the tungstates of barium and sodium, and has so far no separate existence. It is not much used.—Yours, etc.,

CHEMICUS.

FATAL PETROLEUM EXPLOSION.—On Saturday a terrible accident occurred at a house in Garden-street, Newcastle-under-Lyme, occupied by a family named Crewe. All had gone to bed excepting a child named Roseline, aged about twelve years, and the mother. A lamp was hanging from the ceiling, and it appears that the girl stood on a table, and blew down the glass to extinguish the light. An explosion followed, and in a few seconds the girl's clothing and a number of articles of apparel hanging on a line were in flames. The father, Thomas Crewe, was burnt about the legs, also a lodger, named Middleton. The girl Roseline was conveyed to the North Staffordshire Infirmary, where she died. Last week four children were burnt to death through the same cause at Plaistow.

MANCHESTER GAS RESIDUALS.—In regard to the proposals of the Manchester Corporation to work up their own residuals, it stated that the arrangements are such that, in the conversion of the gas liquor into sulphate of ammonia, the risk of nuisance would be less than in other works of this class, because, as the production of sulphuric acid would be ancillary to the other, the sulphuretted hydrogen gas produced in the sulphate manufacture would be utilised in the oil of vitriol plant. In this way the process would not only be an economical one, but a much needed object lesson would be given by the Gas Committee in the conduct of a manufacture in connection with which complaints not infrequently arose. The works, when carried out by a competent contractor, will, it is said, be a model works of its kind. With all the best modern appliances and arrangements for conducting the operations with economy and success, considerable saving of labour in handling the materials, both raw and finished, would be effected by the large use of automatic machinery. The sulphate of ammonia plant, as designed, was of a capacity sufficient to produce 20 tons per day of 24 hours. The sulphuric acid plant would be capable of turning out about 78 tons of acid per week. The following is the summary of the estimate: Sulphate plant, £9,480.; acid plant, £9,330.; connections and valves to sulphate plant, boilers, and acid plant (including liquor pipes), £2,500.; boiler-house (with chimney), £1,200.; foundations for sulphate and acid plants (including sumps and drains) £2,000.; contingencies, £490.—total, £25,000.

A PAGE IN THE HISTORY OF SCIENCE.

THE development of the electrolytic process of producing alkali and bleach is, as we showed last week, making rapid strides towards perfection, and there is something very fitting in the fact that St. Helens should be the seat of operations for one of the most important of recent advances. It was at this town that Messrs. Gamble and Muspratt started the first Leblanc works in 1828, and with the close of the century Messrs Bird and Hargreaves have added another pioneer process to the historical records of the town. St Helens then and now are two very different places. To quote the articles on the "Founders of the Alkali Trade," which appeared some years back in the JOURNAL, when Gamble and Muspratt established their works at Gerard's Bridge, "they invaded a very prettily situated little country town. It was the residence of several well-to-do families, who lived in substantial, comfortable homes, attached to their shops or close to their business. Gardens and well-stocked orchards ran from street to street, the roads that led out from the town were lined with avenues of trees, and on all sides were rich farm lands, with well-cultivated hedges, and abundant timber. The streams, that converged from Eccleston and Rainford, and ran down the Newton and Sankey valleys to the Mersey, were stocked with trout. If when these founders of the industry that would so enrich this town, could, when they were selecting the site, have had a vision of the transformation they would effect, they might have shrunk from the enterprise There lay a smiling, peaceful valley, rich in fruits and flowers, and a rippling, crystal brook. *Nous avons changé tout cela.*

LEBLANC.

(From a photograph taken by Prof. Bedson, from portrait in the Durham College of Science.)

"The process used for the production of soda in the works at Gerard's Bridge, was that of Nicolas Leblanc, the French chemist, his patent being obtained in September, 1791. This process has lasted throughout the century as the one means of producing the coveted soda and its congener chlorine, but the talented inventor, though he might have had bright dreams of the great success that would attend the working of his invention, found the times too troublesome for the pursuance of his project; the French Revolution intervened, and though in 1806, the works that had been confiscated were returned to him by the Emperor Napoleon, the property was useless to him, as he had no capital, and with the burden of years and sorrows pressing upon him, he had to take refuge in the workhouse, where he died by his own hand."

MR. JAMES HARGREAVES, F.C.S.

In the Hargreaves-Bird process it is the diaphragms which are the essence of the whole invention. These diaphragms, which are about ¼-inch thick, are made of asbestos fibre, incorporated into a solid sheet by a silicate composition. They are hard and of considerable strength, and are not in any way of the nature of a filtering medium. The present cell, with its 100 square feet of diaphragm and cathode, decomposes on the average 237 lbs. of salt per 24 hours. It produces from this 365 lbs. of bleach, containing 37 per cent. chlorine, and 578 lbs. of soda crystals, or 213 lbs. of soda ash. The current used averages 2,300 ampères, at a pressure of 3·90 volts at the cell, or 4·70 volts at the dynamo. The electrical horse-power is 14½, which at ¼d. per hour (the usual cost in England for large installations) would come to 7s. per day. The cost is of course somewhat greater in the present cell. The theoretical yield of soda ash for a current of 2,300 ampères for 24 hours is 220 lbs., so that the actual yield is remarkably high, showing an electrical efficiency of 97 per cent The process is a continuous one, and requires practically no skilled supervision. The usual practice, says a writer in "The Mineral Industry," has been to keep the plant going night and day for a month, and then open it, and, if necessary, change the diaphragm. At the time of writing (April 19th) the cell has not been opened for fifty-six days, and everything is still progressing in the most satisfactory manner. The carbon anodes have been in use since 1897, so their life is satisfactory. The chlorine outlet is arranged in such a way that the gas does not come into contact with the anodes or supporting conductors, thus reducing the liability of the anodes to destruction. There is therefore nothing about the plant which requires frequent renewal. The diaphragms are easily made, and do not need any specially skilled labour in their manufacture. They are made much on the same principle as is used in the manufacture of paper, and the hardening of their mass into a compact sheet is easily effected. The cost of manufacture of these diaphragms is not great, for the cost of two of 50 square feet each is, under present circumstances, only 5s. This is due to the fact that the materials and plant are cheap, and that no special workmanship is required. The initial cost of the salt which has been used hitherto varies from 6s. to 9s. per ton; and the weak brine is enriched from time to time with more salt added. In the new plant which is contemplated it is intended to use brine direct from the wells, such as is obtained anywhere in the Cheshire basin. This natural brine is a saturated solution, and its cost is extraordinarily low, for one ton of salt as contained in the brine only costs 3d. delivered to the cells.

Professor William Ramsay, of University College, London, investigated the process last year, and after bearing his testimony to the economical working of the process, he says:—"A very important fact in connection with this process is that there are no waste products. The Leblanc process produces enormous heaps of soda waste, which create such a nuisance to the manufacturer, and often to the neighbourhood; the ammonia-soda process has to contend with large amounts of chloride of calcium liquors and lime residues, which must be disposed of; but in the Hargreaves-Bird process, the brine yields nothing but caustic or carbonated soda and bleaching powder; the unused brine may be returned into the mine to again become saturated with salt.

Mr. James Hargreaves, the patentee of the process, is an interesting figure. Although the years are telling their tale, he is still hale and hearty, and was most active in explaining all the details of the process. In 1883, when he was president of the Liverpool Polytechnic Society, he referred in his presidential address to the great waste in chemical manufacture, and said there was ample field for the exercise of the talents of scientific men. It was characteristic of the man that he took the matter in hand himself, and about seven years ago, with the late Mr. Thomas Bird as his assistant, he set to work, with the results which we have seen, and which we hope will bring him an adequate reward for his long-continued labours. The subscription list of the company will open on December 5th and close on December 7th.

THE LATE MR. THOMAS BIRD.

SULPHIDES REDUCTION COMPANY.—It is officially stated that "a contract has just been concluded between the Sulphides Reduction Company, of London, and the French Sulphides Company, whereby the former have taken over the French Smelting works at Angoulême (Charente), together with the various well-known mines of the French company, which are situated in the districts of Allone, Ambernac, Anduze, Ardâche, and the Haute Loire. These mines and works are to be amalgamated with the British Sulphides Smelting Company, and it is stated that by this arrangement the Sulphides Reduction Company benefits to the extent of about £500,000. in cash and shares. A well-known American mining engineer is now visiting these mines with a view to their being worked on an extensive scale."

Trade Notes.

Veni, Vidi, Vici.—Rumours have been afloat for many months of the probable purchase of the works of Messrs. Bowman, Thompson and Co., Ltd., at Northwich, by Messrs. Brunner, Mond and Co. As we go to press we learn that the negotiations are almost if not already completed, and that the probable settlement will be made in an exchange of shares, three shares of B. T. & Co. for one of B. M. & Co.

Wood Gas.—A gas similar to that of coal is obtained when wood is distilled in a closed chamber, but a disadvantage is that this gas requires a complicated purification. M. Riché has, however, conceived the happy idea of doing away with all purifying appliances by making the gas pass over charcoal heated to redness, either operating by reversed distillation or by employing twin retorts. The gas thus obtained is comparatively rich, since it has a calorific power of about 3,000 calories per cubic metre (343 B.T.U. per cubic foot), and contains no hydrogen. Although this gas is not illuminating, it is perfectly suitable for motive power; and the method is chiefly important for regions where wood is cheap and abundant. Relying on the sale of the by-products, the makers of the Riché gas producer hope to arrive at a very low price for the horse-power, in which case wood might compete with coal; but it does not appear likely that this gas will ever be able to compete successfully with poor coal gas.

American Iron Production.—The output of iron in the United States continues to increase phenomenally, the usual monthly returns showing the number of furnaces in blast and their aggregate output capacity per week again breaking the record. For November 1 the number of furnaces in blast is stated as 287, and the rate of output per week as 288,522 tons, an increase of nearly 10,000 tons per week as against the return on October 1. On September 1 the number of furnaces in blast was 257, and the rate of output was 267,335 tons, so that during the past two months there has been an increase of 30 in the number of active furnaces and of 21,187 tons per week in the output capacity, or an increase at the rate of more than a million tons per annum. The increase within the last nine months, or since March 1, has been 95 active furnaces and 60,327 tons per week in the output capacity, or at the rate of about 3,000,000 tons per annum, the present total weekly output being at the rate of 15,000,000 tons per annum. Notwithstanding this increase of about 25 per cent. in the rate of output since March 1, the new supply still apparently falls short of the current demand, as the visible stocks show a further decrease. It is noteworthy, however, that though the market has continued surprisingly strong some slight concessions in prices have been reported.

Market Reports.

TAR AND AMMONIA PRODUCTS.

The market generally is very firm. Benzols are unchanged at present, but carbolic acids are now worth 2s. 10d. and crystals 10¼d. to 10½d. Naphthas are on the advance, solvent by from 1½d. to 2d. up on the week. Creosote is steady. Anthracene rather firmer but without alteration in prices. Pitch steady at 34s. f.o.b. East Coast.

Sulphate of ammonia is very firm, and £11. 7s. 6d. is asked at almost all ports for prompt, and up to the end of the year. For Jan./Mar. prices range from £11. 5s. at Hull to £11. 12s. 6d. Leith. Beckton offers at £11. 10s. There has been fairly well of business doing and the market closed steady.

MISCELLANEOUS CHEMICAL MARKET.

Business continues brisk in all branches of the chemical trade. Bleaching powder is strong at £6. per ton, rails, and makers are well supplied with orders. Caustic soda very active, and scarce for near delivery; prices remain unchanged. Pure alkali, 58%, firm at £4. 7s. 6d., rails. Saltcake is in fair demand, but the supply is good, and price does not improve. Soda crystals still stand at 55s., with not much trade passing. Nitrate of soda quiet at £7. 15s. per ton. Sulphate of copper moves steadily at £24. 15s. to £24. 17s. 6d. In acetates, business is good. Soda strong at £14. 10s. Sugar of lead (foreign), £23. 15s. Brown lime, £6. 5s.; grey, £9. 5s. Acetic acids dearer and in excellent demand. Ammonia salts advancing; carbonate now stands at 3¾d.; grey muriate, £23. 10s. to £23 15s. White powdered arsenic remains in good request at £19. 5s., f.o.r. Garston. Carbolic acids have a strong position, and prices are high; crystal, 39/40, is quoted 10½d. per lb.; crude, 60's, 2s. 10d. per gallon. Picric acid, 1s. per lb. Yellow prussiate of potash is weaker at 7½d., but under present conditions of affairs this is only what may be expected. Borax still quoted £16. for lump, and £16. 10s. for powder. Sulphocyanides sell slowly at former rates. Tartaric and tannic acids are still rising. Fine chemicals generally find a satisfactory market.

REPORT ON MANURE MATERIAL.

The tone of the market is very quiet, and there is not much business doing in any department.

For Florida phosphate rock, 77/80%, 8½d. per unit would be accepted, c.i.f., to good U.K. ports, and Tennessee rock is freely offered at 7d. per unit. South Carolina river rock is also offered more freely, and some concession in price would probably be made to induce any important business. Bombay bone meal is less freely offered, but £4 15s. per ton would still be cabled for Dec.-Jan. shipment.

Nitrate of soda is rather weaker in the forward position, but spot prices remain 7s. 10½d. per cwt. for good and 8s. per cwt. for refined quality.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron steady: Scotch warrants closed at 70s. 9½d.; Middlesbrough, 69s. 6d. cash; and hematite, 77s. 10½d. Copper steady: Chili bars, G.O.B.'s and G.M.B.'s closed at £75. to £75. 5s. cash; and £73. 5s. to £73. 10s. three months. Tin firm: Straits closed at £126. 10s to £127 cash; and £126. 2s. 6d. to £126. 12s. 6d. three months; Australian, £127.; English ingots, £129. to £131. Lead firm: Spanish, £17. 5s. to £17. 7s. 6d.; English, £17.15s.; Silesian spelter, ordinary, £19 17s. 6d. to £20. Nickel, 1s. 2½d. Antimony, £39. 10s. Quicksilver: First hands and second hands, £9. 10s. *Copper Shares* steady: Cape, 5⅞ to 6; Copiapo, 3⅞ to 4⅛; Libiola, 1⅝ to 1⅞; Mason & Barry, 4⅛ to 4⅜; Rio Tinto, 46¾ to 46⅞; Tharsis, 8⅜ to 8⅝.

GLASGOW, Wednesday.—Market steady, and a good business. Scotch done at 70s. 9d. to 70s. 10d. cash; also at 71s. 3d., 71s. 4d., and 71s. 2½d. month; buyers, 70s. 9½d. cash; sellers, 70s. 10s. Cleveland, buyers, 69s. 6d. cash; sellers, 69s. 7½d. Cumberland hematite done at 78s., 77s. 11d., 78s., and 77s. 11d. cash; also at 78s. 4d. month; buyers, 77s. 10½d. cash; sellers, 77s. 11d.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is very firm, sellers holding well. About 400 tons have changed hands at £23. without having choked off buyers. Olive is scarce, holders being firm at £36. to £37. per tun for Spanish. Linseed steady at 23s. to 24s. cwt. for Liverpool makes in export casks. Cottonseed well held at 19s 6d. to 19s. 9d. cwt. for Liverpool refined. Castor oil steady but quiet on spot. Small forward business done at 2⅞d. for first pressure French. Spot values are:—Good seconds Calcutta, 2 15/16d. to 3d., first French, 2 13/16d., and Madras 2¾d. per lb. Tallow steady and advancing, offerings having been taken up well by purchasers. Resin is rather slow of sale, but prices are maintained. Spirits of turpentine quieter at 38s. 6d spot. Petroleum firmer, American 7½d. to 8¼d., and Russian refined 6⅜d. to 6¾d. per gallon.

CAKES.—The tone of the market for American Western linseed on the spot continues quietly steady, with only a moderate inquiry experienced, but sellers are still asking £7. 6s. 3d. to £7. 7s. 6d.; whilst with supplies of all other imported descriptions in a very narrow compass the quotations are nominally without change. Liverpool makes meet a moderately fair demand at a further decline of 2s. 6d., home crushers now offering at £8 5s. to £9. per ton, according to brand. The business passing in good to choice brands of American decorticated cottonseed is quiet, but the previous quotation is steadily maintained at £5. 17s. 6d. to £6. 5s., according to quality, and moderate sales have been concluded in Liverpool makes at a decline of 2s. 6d., viz., £6. 10s. to £6. 15s per ton, according to brand. Steady prices have been realised for Liverpool undecorticated makes in the fair business done for consumption, and sellers remain steady at £4. 16s. 3d. to £5. 10s., according to brand; sound Egyptian on the spot are also steady in tone, but with only a quiet demand experienced transactions are limited to small sales at £4. 15s. per ton.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10. Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—The most important change in this market has been the rapid advance upon cottonseed oil, which has jumped up fully £1. per ton during these last few days; how much this is attributable to the quantity required for export remains to be seen. The exports of refined cottonseed oil last week totalled 329 tons: 71 Belgium, 15 Denmark, 113 France, 41 Germany, 80 Holland, 9 Sweden. The market closes at 17s. 7½d. spot, and to April naked; barrels, £1. 10s. per ton extra; casks, £1. per ton. Linseed oil is in an easier position, and closes about 5s. per ton lower, 21s. 3d. being the spot quotation, naked; 21s. 1½d, November/December; 20s. 9d., January/April; boiled and refined, £1. to £1. 10s. per ton extra. The exports for the week have been 11 tons: 1 Denmark, 2 Holland, 8 Norway. The imports to date have been: Linseed, 537,777 qrs. against 401,130 qrs; cottonseed, 142,222 tons against 176,087 tons; rapeseed, 101,918 tons against 176,087 tons; oilcake, 20,368 tons against 13,474 tons; olive oil, 4,407 tuns against 5,773 tuns; tar, 14,866 barrels against 12,497 barrels. Castor oil is quoted, cold drawn, 29s. 10d. per cwt in barrels, 3 1/16d. per lb. in cases; firsts, 27s. per cwt. barrels, 3 5/16d. per lb. cases; seconds, 26s. per cwt. barrels, 3 1/16d. per lb. cases. Olive oil is quoted from £34. 10s. per tun for Candia. Olive oil soap firm at £18. 10s. per ton to arrive. Turpentine, 38s. Tallow steady. Cod oil, £16. to £18. per ton. Resins unchanged, firm. Yorkshire brown grease, £10. per ton. Oelines scarce, being quoted from 20s. 6d. for brown, to 22s. 6d. for pale.

CAKES.—The present open weather has a tendency to keep down the demand, nevertheless markets rule firm. Linseed cakes firm but quiet, 95% pure, £8. 10s. to £8. 12s. 6d. Oilcakes (linseed), £7. 10s. to £7. 12s. 6d. Russians, £7. 17s. 6d. to £8. Americans none. cotton cakes firm but orders not plentiful: best makes, £4. 12s. 6d. to £4. 15s.; seconds, £4. 10s. to £4. 12s. 6d.; decorticated none. Rape, Black Sea, £4. 10s.

PAINTS.—Business quiet, without anything of importance to record.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

We have here a continuance of the better going market for some time obtaining, and, so far as may be read forward, this healthier condition is to last, for a little time at any rate. In the heavy chemicals there are no changes of price; but firmness is the rule, and the figures are for the most part notedly higher than they were at the close of last year. Sulphate of copper is again a little stiffer in the quotation. Sulphate of ammonia has done well, having advanced £11. 5s. to £11. 7s. 6d. for prompt f.o.b. Leith. The rise in lubricating oils foreshadowed in last week's report has already come. The lighter gravities have been put up £1. a ton, while 865° participates, though not at so marked a rate. This is partly the outcome of the recent meeting with the American representatives; but there would have been some advance even if no such meeting had taken place. Week's imports of sugar at Greenock were 369 hhds., and 81 bags beet, unrefined.

Chief prices current are:—Alum in lump, £4 5s. to £4. 15s. nett. Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2¼d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 10s., all nett, Liverpool; chlorate of potash, 3¼d., less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. nett at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5. 10s. to £6.; 885°, £7. to £7. 10s. and 890/895°, £7. 10s. to £8.; salammoniac, first and second white, £40. and £38. nett, any port; saltcake, 27s.; soda ash, £4. 10s. to £4. 15s., nett Tyne; soda crystals, £2 15s. to £2. 17s. 6d., basis, nett, Tyne; sulphate of ammonia, £11. 5s. to £11. 7s. 6d. prompt, f.o b. Leith; sulphate of copper, £24. 15s. to £25. less 5% Liverpool; white alkali, £5. to £5. 7s. 6d. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue in fair demand and prices generally are firm. Soda crystals are quoted at £2. 17s. 6d. per ton, gross weight, locally. Caustic, 70% £9. 5s., and 76/77% £10 per ton. Sulphur scarce at £4. 15s. per ton.

Bleaching powder, softs, £6. 10s. per ton, nett; do, hards, £6. 15s. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do., 50%, £4. 17s. 6d per ton, nett; do., 52%, £5. 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. 0d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is quoted at 10s. per ton, f o b. Tees.

COALS.—Trade still continues exceptionally brisk and there is a good demand for all qualities of coals. Coke is scarce and the free on board price is now 30/- per ton. To-day's quotations:—Best Northumbrian steam, 13s. 6d. to 14s. per ton; second qualities, 12s. 6d. to 13s. per ton; small steam, 8s. to 8s. 6d. per ton; bunker coals, 13s. 3d. to 13s. 6d. per ton; gas coals, 13s. to 14s.; coke, 30s. per ton.

New Companies.

Northern Explosives Co., Ltd.—CAPITAL, £10,000., in £1. shares—This company has been formed to acquire lands, to purchase or erect, and contract works, buildings, and machinery, and to manufacture and trade in explosives. Registered office, 45, Benfield-street, Glasgow.

Bancroft Extract Co., Ltd.—CAPITAL, £5,000., in £1. shares.—This company has been formed to acquire the business carried on at Cheadle, Cheshire, under the style of Bancroft, Metcalfe, and Co, and to carry on the business of dyewood extract manufacturers, logwood, dyewood, colour and drug grinders, chemists, druggists, drysalterers, etc. Registered office, Wellfield Works, Brook-road, Cheadle, Cheshire.

Nickel Corporation, Ltd.—CAPITAL, £750,000, in £5. shares.—This company has been formed to acquire certain groups of nickel mines, or nickel mining properties, in the Colony of New Caledonia, to search for, prospect, examine, and explore any mines and ground supposed to contain minerals or precious stones in Australia or elsewhere, and to carry on any mining, metallurgical, engineering, commercial, and other business. The subscribers to the memorandum of association are:—G. T. Lupson, 272, Upland-road, Dulwich, registrar; H. A. Wesson, 67, Ockenden-road, Canonbury, clerk; W. J. Chattell, Camden-rise, Chislehurst, clerk; H. A. Bengough, 150, Windsor-road, Forest-gate, clerk; A. J. Romeril, South-view, Kilworth-avenue, Southend-on-Sea, clerk; P. S. Bruff, 11, Rosebery-gardens, Crouch End, N., clerk; F. Bull, Chattock, Westcliff-on-Sea, clerk.

Lancashire Patent Belting and Hose Co., Ltd.—CAPITAL, £35,000, in £5. shares (1,000 deferred).—This company has been formed to adopt an agreement with S. J. McNechan, for the acquisition of the business carried on by him at Tortworth-street, Manchester, and elsewhere, and to carry on the business of belting and hose manufacturers, etc. The subscribers to the memorandum of association are:—S. J. McNechan, 1, Tortworth-street, Manchester, belting manufacturer; Mrs. A. McNechen, Beach-hill, Kersal, Manchester; C. G. White, 2, Bamford-grove, Didsbury, near Manchester, clerk; F. Owen, Oakleigh, Urmston-lane, Stretford, Lancashire, cashier; G. Owen, Oakleigh, Urmston-lane, Stretford, Lancashire, cashier; W. P. Hesp, 49, Richmond-grove, Longsight, Manchester, cashier; F. Wood, Suffolk-house. Suffolk-lane, Cannon-street, E.C., manufacturer's agent. Registered office, 1, Tortworth-street, Manchester.

Calico Printers' Association, Ltd.—CAPITAL, £6,000,000, in £1. shares.—This company has been formed to carry on the business of calico printers, bleachers, dyers, paper makers and stainers, general printers, calenderers, embossers, engravers, designers, finishers, spinners, doublers, manufacturers, producers, merchants, brokers, and wholesale retail dealers of and in all descriptions of calico, cotton, linen, silk, worsted, woollen, glass, wood, indiarubber, etc. The first seven subscribers to the memorandum of association are:—F. F. Grafton, 91, Portland-street, Manchester, calico printer; G. McConnell, 10, Charlotte-street, Manchester, director; L. B. Lee, 33, George-street, Manchester, calico printer; J. McMillan, 41, George-street, Manchester,

managing director; R. A. Rumney, 22, Dickinson-street, Manchester, calico printer; G. W. Taylor, 53, Portland-street, Manchester, managing director; W. N. Molesworth, 47, Mosley-street, Manchester, managing director.

India Mills (Delhi) Co., Ltd.—CAPITAL, £60,000., in £1 shares.—This company has been formed to carry on at Delhi or elsewhere in India, Ceylon, Burmah, and other parts of the British Empire in Asia, the business of cotton spinners, wool combers, worsted spinners, yarn merchants, bleachers, dyers, manufacturers of vitriol, chemicals, and dyeing and bleaching materials, etc. The subscribers to the memorandum of association are:—G. Knight, 14, Devonshire-square, E.C., East India agent; G E. W. Cockell, 14, Devonshire-square, E.C., East India agent; S. C. Maguire, 4, Hercules-passage, E.C., stock-broker; C. W. Dawson, 14, Devonshire-square, Bishopsgate, E.C., India merchant; H. Ockerby, 114, Queen Victoria-street, solicitor; J. B. Yuille, 16, Florence-road, Stroud Green, N., clerk; A. S. Parkyn, 38, Salisbury-road, Harringay, N., clerk. Registered office, 14, Devonshire-square, E.C

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending November 18th.

Acetic Acid—

Holland,	165 pks.	Little & Johnston
,,	20	Netherlands S. B. Co.
,,	15	R W. Greeff & Co
Germany.	2	Argo S. S. Co.

Acetone—

Germany,	2 pks.	R. W. Greeff & Co.
,,	10	T. H. Lee

Alkali—

France,	5 t	J. Barber & Co.
Germany,	1	,,

Alum—

Germany,	100 pks.	R. W. Greeff & Co.

Ammonium Muriate—

Holland,	18 pks.	H. Lorenz

Antimony Ore—

A. Turkey,	121 t.	J. Cameron, Swan & Co.
,,	45	Union L. Co., Ld.

Barium—

Holland,	4 pks.	H. Johnson & Sons
Germany,	3 £196	,,

Barium Chloride—

Germany,	21 pks.	Petri Brs.

Barium Sulphate—

Belgium,	203 pks.	O'Hara & Hoar
,,	500	J. L. Lyon & Co.

Barytes—

Belgium,	273 pks.	J L. Lyon & Co.
Holland,	31	Thames S. T. & L. Co., Ld.
,,	300	W. Harrison & Co.
,,	10	J. Owen
,,	23 cks.	O'Hara & Hoar
Germany,	44	J. L. Lyon & Co.
,,	60	W. Harrison & Co.
,,	20 pks.	H. Johnson & Sons
,,	40	Taylor Brs

Bismuth Ore.—

Queensland,	1 t	H. Grey, Junr.

Bleaching Powder—

Belgium,	5 t.	Deering & Robottom
,,	5 10 c.	Luke & Bailey
Holland,	80 pks.	J. M. Steel & Co.

Bromine—

Germany,	50 pks.	A. & M. Zimmermann

Caoutchouc—

Germany,	1 t.	4 c. L. & I. D Jt. Co.
Zanzibar,	1 16	,,
Straits,	13	11 E. Boustead & Co.
,,	20	Gilman Brs. & Co.
,,	3 8	W. Pope & Co.
U. States,	6	Prop Bull Wf.
,,	4 16	Anderson, Weber, & Smith
Madagascar,	2 15	Proctor Brs.
France,	12	Lewis & Peat
Natal,	1 4	,,
Germany,	5	Prop. Bull Wf.
Chinde,	1	Hale & Son
Queensland,	1	Prop. Bull Wf.

Carbon—

Holland.	£110	Phillipps & Graves

Castor Oil—

Italy,	50 cs.	Wright, Kerr, & Co.
France,	50 pks.	F. Boehm

Caustic Potash—

Germany,	80 pks. 35 t.	J. M. Steel & Co.
France,	40	W. H. Carey & Sons

Chemicals *(otherwise unnescribed)*

Holland,	£131	Netherlands S. B. Co.
,,	10	M Benscher
,,	50	E. Merck
,,	23	A. & M. Zimmermann
,,	10	J. Owen
,,	25	Hernu, Peron. & Co.
,,	15	R. W. Greeff & Co.
Belgium,	20	Leach & Co.
,,	6	Friend & Co.
,,	9	T. Palmer
France,	10	Rosenberg, Loewe, & Co.
Sweden,	100	J Kitchen, Ld.
Germany,	60	L. & I. D. Jt. Co.
,,	31	Argo S. S. Co.
,,	81	E. Merck
,,	12	Craven & Co.
,,	10	T. H. Lee
Brisbane,	880	L. & I. D. Jt. Co.
U. States,	510	H. Harkness
,,	400	B. & F. Wf Co., Ld.
E. Indies,	15	G. & H. Green

Coal Products—

Carbolic Acid

Germany,	40 pks.	Hollinghurst & Co.

Pitch

N. Russia,	300 brls.	Fellows, Morton, & Co.
Sweden,	50	J. Graves
Germany,	10 cs.	H. Lamoert

Colours—

Holland,	5 cks.	O'Hara & Hoar
,,	3	Robinson, Roberts, & Co.
,,	15	R. Baelz & Co.
,,	59 bgs.	C. S. Lowell
Italy,	2 brls.	O'Hara & Hoar

Copperas—

Germany,	£70	F. Smith

Copper Sulphate—

Germany,	35 pks.	Charles & Fox

Cream of Tartar—

Holland,	18 pks.	Kirkpatrick, Barr, & Co.
France,	10	W. C. Bacon & Co.
,,	5	C. Christophersen & Co.
,,	3	H. Johnson & Sons

Dyestuffs—

Argols

France.	79 pks.	B. & F. Wf. Co.,

Extracts

Germany,	5 pks.	T. H Lee
France,	200	Beresford & Co.
Canada,	880	Boutcher, Mortimore & Co.
A. Turkey,	530	Furness, Withy, & Co.
U. States,	2	H. Hermann, Ld.

Gambier

Straits,	501 pks.	Union L. Co., Ld.

Indigo

E. Indies,	52 chts.	L. & I D. Jt. Co.
,,	67	Wallace Brs.

Myrabolams

E. Indies,	236 pks.	W. Shelcott & Sons
,,	7	F. Mayburg
,,	7 pokts.	L. & I. D. Jt. Co.

Saffron

Spain,	1 pk.	H. Rubeck
,,	1	A. Owen

Sumach

Italy,	300 pks.	J. Kitchin, Ld.
,,	124 bgs.	A Waters

Tanners' Bark

Melbourne,	25 t.	Brown & Elmslie
,,	55	Escombe Brs. & Co.
Belgium,	10	Leach & Co.

Turmeric

E Indies,	50 pks.	Clarke & Smith

Valonia

A. Turkey,	110 t.	A. & W. Nesbitt
,,	12	O. Valeiri
,,	8	Anning & Cobb
,,	120	Boutcher, Mortimore, & Co.
,,	100	Hicks, Nash, & Co.

Farina—

Belgium,	9 pks.	John Cockerill Line
Germany,	1	L. & I. D. Jt. Co.
Holland,	150 bgs.	Humphery & Co.
,,	600 pks.	R. Bennett & Co.
France,	3	Rosenberg, Lowe, & Co.

Glucose—

U. States,	250 pks.	350 c. C. Barnard
,,	100	592 L. Norman & Co., Ld
,,	50	300 Page, Son & East
,,	50	300 E. & T. Pink
,,	500	500 Deering & Robottom
,,	30	104 L. & I. D. Jt. Co.
,,	1,450	2,650 R. G. Hall & Co.
,,	200	1,174 Oblensch-lager Brs.
Belgium,	100	200 R. W. Paul
France,	250	250 L. Norman & Co., Ld.
,,	200	250 W. E. Cole

Glue—

Germany,	£240	Beresford & Co.
,,	60	L. & I. D. Jt. Co.
,,	600	Deering & Robottom
,,	260	J Greig
,,	19	T. H. Lee
,,	95	H. Lambert
Holland,	8	Netherlands S. B. Co.
,,	25	Bellamy's Wf., Ld.
Norway,	30	M. D. Co.
France,	13	Mory & Co.
,,	190	Burnett Brs. & Sons
Belgium.	200	Leach & Co.
,,	1,027	Becker & Wagner
,,	655	G. E. Banes
Russia,	270	M. H. Voss

Glycerine—

France,	£410	H. Hill & Sons
Brisbane,	260	,,

Gutta Percha—

Germany,	4 c.	Henley Telegraph Wks. Co.
Straits,	1 t. 5	L. & I. D. Jt. Co.
,,	9 11	Huttenbach & Co.
,,	23 10	H. W. Jewsbury & Co.
W. Indies,	4	Royal Mail S. P. Co.
Holland,	qnty.	H. Kiver & Co.

Iodine—

Japan,	10 cs.	H. J. Perlbach & Co.

Litharge—

Holland,	84 pks.	Spies Brs & Co.

Magnesium—

Germany,	£25	Argo S. S. Co.

Manganese Ore—

France,	3 t.	L. & I. D. Jt. Co.
Germany,	12	C. Hof & Co.
,,	7	Craven & Co.

Manure—

E. Indies,	200 t.	Walker, Howard, & Co.
Bombay,	100	T. T. Creed
,,	100	A. Hunter & Co.
,,	100	Fox, Roy, & Co.
Calcutta,	100	,,
,,	350	A. Hunter & Co.
Belgium,	3	T. Ronaldson & Co.
U. States,	13	A. R. Davis & Co.

Methylic Alcohol—

Belgium,	1,370 g.	Lister & Biggs
U. States,	2,230	H. G. Brown
Germany,	1,440	W. Iszard
,,	300	H. Wallace & Co.
France,	2,329	E. J. Catlin

Molasses—

U. States,	100 cks. 630 c.	P. B. Smith
,,	991 5,639	J. Forsey

Ochre—

Holland,	17 pks.	Phillipps & Graves

Paraffin Wax—

U. States,	400 cs.	Anglo-American Oil Co.

Phosphates—

U. States,	546 t.	Odams Manure & Chemical Co.
W. Indies,	1,344	G. M. Bauer

Phosphoric Acid—

Germany,	15 pks.	L. & I. D Jt. Co.

Potash—

Germany,	2 pks.	T H. Lee

Potassium Carbonate—

Germany,	20 t.	J. M. Steel & Co.

Potassium Muriate—

Germany,	10 t.	F. W. Berk & Co., Ld.

Potassium Oxalate—

Holland,	1 pk.	R. W. Greeff & Co.

Potassium Sulphate—

Germany,	500 pks.	F. W. Berk & Co., Ld.
,,	7 cks.	T. H. Lee

Pyridine—

France,	4 pks.	Page, Son, & Co.

Pyrites—

Portugal,	963 t.	Mason & Barry

Red Lead—

Germany,	10 cks.	D. Storer & Sons
Holland,	7 pks.	Burrell & Co.

Rosin—

U. States,	2,840 brls.	F. & S. Chiesman & Co.

Salicylic Acid—

Belgium,	10 pks.	J. Cockerill Line
Germany,	8	T. H. Lee

Saltpetre—

E. Indies,	1,029 bgs.	Lucas & Spencer's Wf.
,,	141	Perkins & Homer
Belgium,	85	J. Greig
Germany,	76 cks.	P. Hecker & Co.
,,	16	L. & I. D. Jt. Co.
,,	26 cs.	,,
,,	20 cks.	Borax Consolidated Co.
,,	20	Cotton Powder Co.

Soda—

Belgium,	50 t.	A. G. Barker
,,	20	W. Gibbs

Soda Crystals—

Belgium,	34 t. 3 c.	Leach & Co.
,,	20	H. G. Brown

Sodium Acetate—

France,	220 bgs.	J. Harrison
,,	39	,,

Sodium Hyposulphite—

Germany,	5 t. 8 c.	H. Lambert

Sodium Nitrite—

Germany,	38 pks.	Burnett Brs. & Sons
Holland,	25 cks.	J. Owen

Sodium Prussiate—

Belgium,	19 pks.	J. Owen

Sodium Sulphide—

Germany,	30 cks.	H. Wallace & Co.

Starch—

Germany,	14 pks.	T. H. Lee
,,	1,560	Horne & Co.
,,	40	Argo S. S. Co.
U. States,	621	Beck & Pollitzer
,,	25	F. Tallach & Son
,,	110	Seaward Brs., Ld.
,,	400	R. Bennett & Co.
Holland,	40	Hernu, Peron, & Co.
,,	1,261	Little & Johnston
,,	100	J. R. Francis & Co.
,,	40	J. Barber & Co.
,,	85	G. S. N. Co.
,,	10	A. G. Robinson & Co.
France,	140	W. E. Cole
,,	240	A. C. Hitchcock & Co.
,,	20	Sollas & Sons
,,	20	L. Mendelsohn
Belgium,	40	T. Palmer
,,	200	Sawer, Sons, & Co.
,,	660	E. & T. Pink
,,	450	T. Ronaldson & Co.
,,	192	Leach & Co.
,,	240	Becker & Wagner

Stearine—
Belgium, 190 bgs. J. Baker
U. States, 6 cks. L. & I. D. Jt Co.
Holland, 78 H. Hill & Sons
" 18 W. von Romberg
" 51 bls. J. Owen

Sulphur—
Italy, 9 t. H. J. Hughes
" 50 A. Taylor & Co.
Holla d, £27 Typke & King

Sulphur Chloride—
Holland, 20 pks. Typke & King

Tallow—
Belgium, 3 cks. J. Harrison
Queensland, 89 Mordaunt Brs.
" 181 Dalgety & Co., Ld.
" 501 Anning & Cobb
" 188 Lucas & Spencer's Wf.
" 126 Beresford & Co
" 152 Phillipps & Graves
N. Zealan l, 83 Nat. Mort. Agency Co.
" 16 Beresford & Co
" 150 J. W. Cook & Co., Ld.
" 500 Goad, Rigg, & Co.
" 150 Phillipps & Graves
" 12 Lucas & Spencer's Wf.
France, 10 H. Hill & Sons
" 2 W. H. Carey & Sons
" 35 C. S. Lovell
" 6 J. Harrison
" 69 bgs. Bramwell, Fern, & Co.
" 41 Burnett Brs & Sons
Canada, 7 cks. R. Tucker & Co.
U. States, 824 C. Hall
" 150 Price's Pat. Candle Co.
" 125 C. S. Lovell
" 91 bxs. Armour & Co.
" 20 pks. Lunham & Moore
N.S.W., 40 cks. Concordia Wf.
Channel Is., 8 Cheesewright & Ford
Germany, 5 T. Oertell
Victoria, 80 — Griesson
" 63 Mordaunt Brs.
Holland, 146 Netherlands S. B. Co.

Tannin—
Belgium, £43 T. Plamer

Tartar—
Italy, 11 pks. Fellows, Morton, & Co
France, 1 B. & F. Wf. Co., Ld.

Tartaric Acid—
Holland, 20 pks. B. & F. Wf. Co., Ld.
" 4 Kirkpatrick, Barr, & Co
——, 2 Page, Son, & Co.
Germany, 3 F. C. Devon & Co.

Ultramarine—
Belgium, 8 pks. W. Harrison & Co.
" 10 J. Harrison
Germany, 5 Argo S. S. Co
Holland, 2 Netherlands S. B. Co.
" 23 G S N. Co.

Varnish—
Belgium, 7 pks. J. L. Lyon & Co.
France, 13 Mory & Co.
" 7 R. Thompson
U. States, 146 J. R. Francis & Co.

Washing Powder—
U. States, 400 bxs. Pickford & Co.

White Lead—
Austria, 10 pks. T. Palmer
" 20 M. Dk. Co.
Belgium, 17 J. L. Lyon & Co.
" 99 R. Steuert
" 24 cks. J. R. Francis & Co.
Germany, 20 pks. Burrell & Co.
" 60 cks. H. Keller & Co.
" 52 D. Storer & Sons
Holland, 23 N. J. Fenner & Co.
" 38 pks. A. & M. Zimmermann
France, 50 cks. J. L. Lyon & Co.
Norway, 20 pks. R. W. Greeff & Co.

Wolfram Ore—
Queensland, 1 t. 10 c. Brown & Elmslie
" 1 James & Shakespeare
" 12 Major & Field
" 14 H. Grey, junr.
N.S.W., 5 H. Bath & Son

Wood Pulp—
Norway, 200 pks Daily Telegraph Co.
" 400 W. E. Bott & Co.
" 800 E. J. & W. Goldsmith
" 400 bls. E. Lloyd Ld.
" 3,893 London Paper Mills Co.
" 439 W. G. Taylor & Co.
Sweden, 700 Erith & Dartford Ltge. Co.
" 664 pks. W. G. Taylor & Co.
Holland, 78 "
" 210 T. H Lee
" 1,680 Henderson, Craig, & Co.
Canada, 521 "
Germany, 50 Bailey & Leetham
Belgium, 2,064 J. Harrison

Zinc Oxide—
Holland, 220 pks. M. Ashby, Ld.
" 75 Burrell & Co.
" 35 Netherlands S. B. Co.
" 20 cks. "

Zinc Sulphate—
Holland, 15 pks. J. Barber & Co.

Zinc White—
Holland, 100 pks. Spies Brs. & Co.

LIVERPOOL.

Week ending November 16th.

Acetate of Lime—
New York, 1,074 bgs.

Barytes—
Antwerp, 26 cks.

Bones—
Beyrout, 200 bgs.

Boracite—
Panerefia, 100 t.

Borax—
Hamburg, 8 cks.

Castor Oil—
Calcutta, 336 cs. Ralli Brs.
Leghorn, 10 Lignam Brs.

Chemicals *(otherwise undescribed)*
Boston, 1 cs.
Hamburg, 2

Chrome Ore—
Baltimore, 25 cks. P. M'Quae

Citric Acid—
Messina, 4 cks.

Coal Products—
Tar Oil
Antwerp, 27 brls.

Colours—
Antwerp, 10 pks. J. T. Fletcher & Co.

Cottonseed Oil—
Newport News, 600 brls.

Cream of Tartar—
Bordeaux, 53 cks.
Oporto, 4

Disinfectants—
New York, 26 pks. H. L. Creagh

Dyestuffs—
Cutch
Rangoon, 1030 bxs. / 941 cs.
Extract
Bordeaux, 71 cks. R. J. Francis & Co.
Colombo, 109 pks.
Leghorn, 20 brls.
Philadelphia, 60 Sharples Dyewood Extract Co.
" 235
Gambier
Singapore, 2409 bls. / 173 bgs.
Sumach
Palermo, 1,300 bgs.

Dyewood—
San Francisco, 217 t. 10 c. A Thomales

Farina—
Stettin, 50 bgs.

Glucose—
New York, 100 brls.

Guano—
New York, 20 bls. H. Kendall & Sons

Iodine—
Valparaiso, 43 brls.
" 34 A. Gibbs & Sons

Lithopone—
Rotterdam, 20 cs.

Paint—
Hamburg, 50 pks.

Paraffin Wax—
Philadelphia, 600 bls. Anglo-Amer. Oil Co.
Rangoon, 162 bgs. 795 bxs. Duncan, Ewing, & Co.

Phosphates—
Brunswick, 1,049 t.

Potash—
Hamburg, 108 cks.

Potash Lye—
Hamburg, 8 dms.

Pyrites—
Huelva, 5,361 t. Matheson & Co.

Red Lead—
Rotterdam, 10 cks.

Rosin—
Brunswick, 1,350 brls.
Savannah, 900

Saltpetre—
Hamburg, 14 cks. / 100 brls.

Soap—
Hamburg, 1 cs
Leghorn, 65
Smyrna, 2 / 381 bxs
" 1

Soap Stock—
Savannah, 1,400 brls. S. Cotton Oil Co.

Soapstone—
Bordeaux, 350 bgs. Geo. G. Blackwell, Sons, & Co

Sodium Silicate—
Rotterdam, 2 cks.

Starch—
Antwerp, 304 cs J. T. Fletcher & Co.
Rotterdam, 80

Stearine—
Rotterdam, 7 brls.

Sulphur—
Catania, 302 cks. / 84 bls. / 50 bgs.
Girgenti, 1,950 cntrs. Contrell & Cochrane

Tallow—
New York, 350 hhds.
Philadelphia, 742 tcs.

Tartar—
Naples, 4 cks. / 25 cs.

Tartaric Acid—
Hamburg, 19 cs

Ultramarine—
Rotterdam, 20 brls.

Varnish—
New York, 9 brls. W. A. Warren

Waste Salt—
Hamburg, 711 bgs.

Wood Pulp—
Oporto, 1,000 bls.
Rotterdam, 164

Zinc Ashes—
Bordeaux, 145 pks. R. J. Francis & Co.
New York, 42 brls.

Zinc Oxide—
Antwerp, 40 brls.
Hamburg, 25 cks. / 25 cs
New York, 360 brls.
Rotterdam, 20

Zinc White—
Rotterdam, 50 cks.

MANCHESTER.

Week ending November 18th.

Acetic Acid—
Rotterdam, 40 crbys.

Barytes—
Rotterdam, 200 bgs.

Castor Oil—
Antwerp, 125 brls.

Caustic Potash—
Treport, 19 dms.

Chalk—
Treport, 2 cs.

Coal Products—
Alizarine
Rotterdam, 7 cks.
Aniline Colours
Rotterdam, 58 cks. 33 cs. / 140 brls.
Aniline Salt
Rotterdam, 30 cks.
Beta Naphthol
Rotterdam, 1 cs.

Colours—
Antwerp, 10 cs.
Rotterdam, 20 bgs. 12 / 31 cks.
Rouen, 3

Dyestuffs—
Extract
Antwerp, 5 cks.
Rouen, 3
Indigo
Rotterdam, 10 cks.

Farina—
Rotterdam, 100 bgs.

Gelatine—
Ghent, 5 bls.
Rotterdam, 5 cs.

Glue—
Antwerp, 80 bls. J. T. Fletcher & Co.
Hamburg, 46 bgs.
Rotterdam, 20
Rouen, 20 / 16 cks. / 8 bls.
Treport, 8 cs.

Limestone—
Antwerp, 1 crte. J. T. Fletcher & Co.
" 1 1 cs.

Litharge—
Rotterdam, 13 cks.

Paraffin Wax—
New York, 869 cs.

Potash—
Montreal, 22 brls.

Potassium Carbonate—
Treport, 5 cks.

Potassium Prussiate—
Antwerp, 7 cks.

Pyrites—
Huelva, 2,082 t.

Red Lead—
Rotterdam, 6 cks.

Soda—
Hamburg, 6 cks.

Sodium Acetate—
Antwerp, 22 cks.

Starch—
Antwerp, 410 cs.
Hamburg, 156
Montreal, 1,759 bgs.
New York, 1,125
Rotterdam, 260

Stearine—
Antwerp, 7 bgs.
Rotterdam, 90 bls.

Tallow—
New York, 50 hds.

Tartar—
Hamburg, 17 cks. / 5 kgs.

Tartaric Acid—
Rotterdam, 20 cks.

Ultramarine—
Hamburg, 3 cs.
Rotterdam, 20

Waste Salt—
Hamburg, qty.

Wood Pulp—
Christiania, 2,720 bls. W. H. Ingram
Drammen, 684 "
Holmestrand, 520 "
Rotterdam, 235 rolls 21 pks.

Zinc Oxide—
Antwerp, 5 brls.
Rotterdam, 20

HULL.

Week ending November 18th.

Acetic Acid—
Christiania, 4 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 9 blns. Hull & Netherlands S. S. Co.

Acids—
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.

Alumina Sulphite—
Ghe t, 50 bgs. Wilson, Sons, & Co., Ld.

Antimony—
Dunkirk, 2 cks. Wilson, Sons, & Co., Ld.

Asbestos—
Abo, 500 sks.

Barytes—
Amsterdam, 47 cks. Hull & Netherlands S. S. Co.
Bremen, 45 W. Gray & Co.
Rotterdam, 66 Hull & Netherlands S. S. Co.

Chalk—
Calais, 140 t.

Chemicals *(otherwise undescribed)*
Danzig, 17 cks.
Ghent, 50 bgs.

Coal Products—
Alizarine
Rotterdam, 30 cks. 2 cs. 34 pks 80 brls. 2 bxs. Hull & Netherlands S. S. Co.
Aniline
Rotterdam, 137 pks. 28 cks. 7 cs. Hull & Netherlands S. S. Co.
Carbolic Acid
Amsterdam, 23 btls. Hull & Netherlands S. S. Co.
Rotterdam, 28 cks. ,,
Naphthol
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Pitch
Rotterdam, 48 cks. Hull & Netherlands S. S. Co.
St. Petersburg, 122
Colours—
Amsterdam, 1 ck. Hull & Netherlands S. S. Co.
Antwerp, 255 pks. Wilson, Sons, & Co., Ld.
Dunkirk, 8 cks. ,,
Ghent, 4 ,,
Hamburg, 6 ,,
,, 5
Rotterdam, 15 brls. 5 cks. 43 pks. Hull & Netherlands S. S. Co
,, 3 cks.
Dyestuffs—
Indigo
Rotterdam, 3 cs. 6 brls. Hull & Netherlands S. S. Co
Indigo Extract
Rotterdam, 2 brls. Hull & Netherlands S. S. Co
Valonia
Smyrna, 182 t.
Farina—
Hamburg, 100 bgs. Bailey & Leetham, Ld.
Harlingen, 600 bls. Hull & Netherlands S. S. Co
Stettin, 1,134 bgs.
Gelatine—
Dunkirk, 1 pk. Wilson, Sons, & Co., Ld.
Glucose—
Stettin, 100 bgs.
Glue—
Hamburg, 345 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 20 Hull & Netherlands S. S. Co.
Lead Acetate—
Hamburg, 40 cks. Wilson, Sons, & Co., Ld.
Lithopone—
Amsterdam, 41 cks. Hull & Netherlands S. S. Co
Manure—
Kurrachee, 12,190 bgs.
Phosphates—
Coosaw, 2,450 t. Hammond, Emes, & Co.
Ghent, 162
Potash—
Antwerp, 9 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 16 dms. ,,
Red Lead—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Saltpetre—
Antwerp, 135 pks. Wilson, Sons, & Co., Ld.
Hamburg, 21 cks. ,,
Silicate—
Antwerp, 6 brls. Wilson, Sons, & Co., Ld.
Soap—
Dunkirk, 6 cs. Wilson, Sons, & Co., Ld.
Soda—
Antwerp, 1 ck. 550 bgs. Wilson, Sons, & Co., Ld.
Ghent, 300
Sodium Bichromate—
Hamburg, 20 cks. Wilson, Sons, & Co., Ld.
Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
Bremen, 2,136 cs. Veltmann & Co.
Ghent, 196
Stettin, 100 bgs.
Sulphuric Acid—
Rotterdam, 5 hmprs. 1 cs. Hull & N'lands S. S. Co.
Tallow—
Dunkirk, 131 cks. Wilson, Sons, & Co., Ld.
New York, 65 trcs. ,,
Tartar—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co.
Tartaric Acid—
Rotterdam, 2 cks. 3 brls Hull & Netherlands S. S. Co.
Ultramarine—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.
Waste Salt—
Hamburg, 400 bgs. 7 t.
White Lead
Amsterdam, 54 cks. Hull & Netherlands S. S. Co
Rotterdam, 50 ,,
Wood Pulp—
Abo, 299 bls. J. Good & Sons
Christiania, 2,903 Wilson,
,, 20 cs. Sons, & Co., Ld.
Drontheim, 320 bls. ,,
Gothenburg, 33 pks. 916 bdls. ,,
,, Hamburg, 280 pks. Bailey & Leetham. Ld.
Norrkoping, 180 bls. Wilson, Sons, & Co., Ld.
Zinc Oxide—
Amsterdam, 3 cks. Hull & Netherlands S. S. Co.
Antwerp, 4 brls. Bailey & Leetham, Ld.
New York, 100
Zinc Sulphate—
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.
Zinc White—
Amsterdam, 25 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending November 23rd.

Acetone—
Fiume, 10 dms.
Alum—
Amsterdam, 15 cks. J. Rankine & Co.
Barium Chloride—
Rotterdam, 6 cks. J. Rankine & Son
Barytes—
Amsterdam, 47 cks.
,, 22 J. Rankine & Son
Rotterdam, 3 pks. ,,
Castor Oil—
Calcutta, 100 cs.
Chalk—
Fiume, 300 bgs. P. M. M Intosh & Sons
Trieste, 100 G. Semple,
Coal Products—
Alizarine
Rotterdam, 32 cks. J. Rankine & Son
Aniline
Rotterdam, 22 cks. 7 cs. J. Rankine & Son
Betanaphthol
Rotterdam, 5 cks. J. Rankine & Son
Colours—
Hamburg, 10 cks. 2 cs.
Rotterdam, 217 pks. J. Rankine & Son
,, 16 cks. 1 cs.
Dyestuffs—
Extract
Fiume, 274 brls.
Rotterdam, 7 cks. J. Rankine & Son
Indigo Extract
Rotterdam, 4 cks. J. Rankine & Son
Dyewood—
Boston, U.S.A., 10 cs.
Farina—
Delfszyhl, 100 bgs. J. Rankine & Son
Gelatine—
Rotterdam, 7 cs. J. Rankine & Son
Glue—
Fiume, 100 bgs.
Rotterdam, 40 J. Rankine & Son
Lamp Black—
Gothenburg, 10 cs.
Paint—
New York, 1 cs.
Potash—
Hamburg, 57 cks.
Potassium Oxalate—
Rotterdam, 10 cks. J. Rankine & Son
Red Oil—
Baltimore, 60 brls.
Rhodan Barium—
Hamburg, 4 cks.
Rosin—
Baltimore, 2,550 brls.
Rotterdam, 6 cks. J. Rankine & Son
Soap—
Fiume, 133 cs.
New York, 25 3 bxs.
Rotterdam, 25 cs. J. Rankine & Son
Sodium Nitrate—
Rotterdam, 19 cks. J. Rankine & Son
Starch—
Fiume, 400 bgs.
Baltimore, 1,369
Stearine—
Amsterdam, 61 bgs. J. Rankine & Son
Tallow—
New York, 161 tcs.
Tartaric Acid—
Rotterdam, 24 cks. J. Rankine & Son
White Lead—
Rotterdam, 29 pks. 26 brls. 89 cks. J. Rankine & Son
Wood Pulp—
Gothenburg, 716 bdls.
Drammen, 5,055 bls.
Christiania, 685 94 bgs. 20 cs.
Valencia, 100
Holmestrand, 1,810 bls.
Rotterdam, 75 J. Rankine & Son
Zinc Oxide—
New York, 205 brls.
Rotterdam, 75 cks. J. Rankine & Son
Zinc White—
Rotterdam, 25 pks. J. Rankine & Son

TYNE.

Week ending November 18th.

Alkali—
Hamburg, 4 cks.
Asbestos—
Hamburg, 106 bgs. Tyne S. S. Co.
Rotterdam, 14 bls. ,,
Barytes—
Rotterdam, 100 bgs. Tyne S. S. Co.
Colours—
Antwerp, 4 cks. Tyne S. S. Co.
Hamburg, 1 cs. 1 ck. ,,
Rotterdam, 1 59 bgs. ,,
Copper Ore—
Seville, 350 t. H. Hill & Sons
Copper Precipitate—
Huelva, 201 t. Tharsis Sulphur & Copper Co.
Limespar—
Hamburg, 700 bgs. Tyne S. S. Co.
Paint—
Hamburg, 197 dms. Tyne S. S. Co.
Pyrites—
Huelva, 2,629 t. Tharsis Sulphur & Copper Co.
Saltpetre—
Hamburg, 20 kgs. Tyne S. S. Co.
Soap—
Hamburg, 9 cks. 1 bx. Tyne S. S. Co.
Rotterdam, 3 cs. ,,
Starch—
Antwerp, 80 cs. Tyne S. S. Co.
Rotterdam, 50 ,,
White Lead—
Antwerp, 20 brls. 8 cks. Tyne S. S. Co.
Rotterdam, 5 ,,
Wood Pulp—
Christiania, 1,540 bls. P. H. Matthiessen & Co.
,, 800
Gothenburg, 524 pks.
Skein, 7,600 bls. ,,
Zinc Oxide—
Antwerp, 60 brls. Tyne S. S. Co.

GOOLE.

Week ending November 15th.

Barium—
Hamburg, 3 cks.
Caoutchouc—
Boulogne, 1 ck.
Coal Products—
Alizarine
Rotterdam, 2 cks.
Aniline
Amsterdam, 3 cs.
Antwerp, 4 cks.
Hamburg, 12
Rotterdam, 232 23
Pitch
Amsterdam, 7 cks.
Colours—
Hamburg, 2 cs.
Dyestuffs (*otherwise undescribed*)
Boulogne 7 cks.
Dyestuffs—
Extract
Amsterdam, 5 cks.
Hamburg, 110 bgs.
Quebracho Extract
Antwerp, 72 cks.
Farina—
Delfszhyl, 138 bgs.
Glucose—
Calais, 200 bgs.
Glue—
Antwerp, 13 cs.
Boulogne, 24 bs.
Hamburg, 10 bgs.
Paint—
Hamburg, 21 cks.
Potash—
Hamburg, 24 cks. 20 dms.
Rotterdam, 9
Saltpetre—
Hamburg, 29 cks.
Rotterdam, 100 bgs.
Waste Salt—
Hamburg, 232 bgs. 147 cks.
White Lead—
Antwerp, 13 cks.

GRIMSBY.

Week ending November 18th.

Caoutchouc—
Hamburg, 19 cs.
Rotterdam, 2
Chemicals (*otherwise undescribed*)
Hamburg, 2 cs.
Rotterdam, 18 cks.
Colours—
Antwerp, 11 cks. 114 pks.
Dieppe, 2 cs.
Hamburg, 33 45 221
Rotterdam, 5
Dyestuffs—
Indigo
Hamburg, 6 cs.
Glue—
Dieppe, 10 bs.
Hamburg, 100 bgs.
Manganese Ore—
Antwerp, 40 cs.
Saltpetre—
Antwerp, 55 bgs.
Soap—
Rotterdam, 8 bxs.
Varnish—
Hamburg, 1 cs.
Zinc Ashes—
Antwerp, 30 cks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 22nd.

Alkali—

Boston,	3 t.	18 c.	£30
Seychelles,	2	18	29
New York,	6	4	100

Ammonium Carbonate—

Dunedin,		10 c.	£19
Yokohama,	5 t.		143
Hamburg,	51		620

Ammonium Muriate—

Antwerp,	22 cks.	£126
Cologne,	23	117

Ammonium Nitrate—

New York,	15 cks.	£70

Ammonium Sulphate—

Demerara,	100 t.		£1,109
Jamaica,	2	6 c.	28
Hamburg,	51		620
Valencia,	287	12	3,000
Calcutta,	5	5	60

Arsenic—

Yokohama,	1 t.	10 c.	£31
Hiogo,	1		21

Bleaching Powder—

Bombay,	1 t.	5 c.	£10

Borax—

Brisbane,	12 kgs.		£10
Cadiz,	1 t.	2 c.	17
Rio de Janeiro,		5	18

Carbon Bisulphide—

B. Ayres,	2 t.	10 c.	£32

Carbonic Acid Gas—

Channel Is,	55 tubes	£21
Rotterdam,	20 cyldrs.	60

Caustic Potash

Brisbane,	1 t.	10 c.	£35

Caustic Soda—

Fremantle,		10 c.	£25
Melbourne,		5	6

Chemicals *(otherwise undescribed)*

Tobago,	5 cs.		£16
Antwerp,	5 cks.		14
Montreal,		188 pks.	604
Toronto,		78	273
Cape Town,	20		20
Lyttelton,	1		17
Constantinople,	1		13
Bombay,	10 kgs.	2 13	70
Dunedin,	8		26
Sydney,	17		172
Adelaide,	20		28
Vancouver,		8	15

Citric Acid—

Libau,	15 kgs.		£170
Rotterdam,	15		99
Brussels,	6		44
Karachi,	4 cs		39
Cologne,	4		29
Amsterdam,	2		85
	2 cks.		
Antwerp,	2 c.		14
Hamburg,	4		195
	20 kgs.		
Genoa,	20	15	351
Yokohama,		10	70
Bombay,		qnty.	24
New York,	1 t.	10	196

Coal Products—

Alizarine

Montreal,	10 cks.		£103
Madras,	17		41
Boston,	15		182

Aniline Dyes

Melbourne,	1 cs.		£8
Otago,	2		37

Aniline Oil

New York,		45 dms.	£1,350

Anthracene

Dusseldorf,	171 cks		£380

Benzine and Naphtha

Brisbane,		15 pks.	£12

Benzol

Boulogne,	50 cks.		£95

Carbolic Acid

Corinto,	1 brl.		£6
Rio de Janeiro,	10 cks.	70 dms.	76
Rotterdam,	77		662
Yokohama,	300		945

Coal Tar Dyes

Melbourne,		15 pks.	£215

Creosote

Gothenburg,	30 cks.		£242

Naphtha

Newcastle,		50 pks.	£44
Piræus,		25 dms.	20
Melbourne,		30	35

Naphtha Spirit

Melbourne,		100 dms.	£103

Naphthaline

Shanghai,	40 cks.		£35
Cologne,	7		61

Pitch

Pt. Chalmers,	20 cks.		£15
Rangoon,	35		13
Boston,	300		130
Sydney,		6 brls.	6
Antwerp,	831 t.		1,131
Treport,		28	54
Dunkirk,	150		232
Hamburg,		24	51
Chantenay,	1,400		2,400

Pyridine

Cologne,	12 cks.		£115
Dusseldorf,	36		350

Tar

Bombay,	126 rnlts.		£107
Durban,		10 dms.	7
Delagoa Bay,		100	12
Fremantle,		40	8
Hamburg,		400 brls.	166
Sydney,		12 25	26
Cape Town,		175	9
Seychelles,		40	7

Tar Oil

Marseilles,	6 cks.		£9

Toluol

Boulogne,	50 cks.		£145
Hamburg,	62		185

Coal Products *(otherwise undes.)*—

Gibraltar,		2 brls.	£5

Copper Sulphate—

Rouen,	5 t.	2 c.	£122
Suakim,	1	2	26
Paris,	11		250

Cream of Tartar—

Wanganui,		10 c	£38

Disinfectants—

Calcutta,	175 cks.		£65
E. London		30 pks.	17
Fremantle,		9 cs.	21
Grenada,		11	19
Adelaide,		5	29
Rouen,		3	15

Glycerine—

New York,	66 t.	12 c.	£2,150
Rotterdam,	20	2	500

Hydro-carbon—

Brussels,		15 dms.	£21

Manure—

Landerneau,	148 t.	1 c.	£350
New York,	1	10	15
Melbourne,	255	6	780
Jamaica,	78	12	739
Antwerp,	60	14	488

Nitric Acid—

Channel Is,	14 crbys.		£30

Oxalic Acid—

Bombay,	1 t.		£30

Oxygen—

Sydney,		1 cs.	£11

Oxygen Gas—

Amsterdam,		1 cs	£14

Pearl Ash—

Brisbane	1 t.	7 c.	£25

Potash—

B. Ayres,	2 t.	8 c.	£37
Melbourne,		10	—

Potassium Bichromate—

B. Ayres,	1 t.	14 c.	£47

Potassium Chlorate—

Cape Town,	5 t.	17 c.	£150

Potassium Cyanide—

Fremantle	5 t.				£548
Brisbane,	1				113
Melbourne,	1	4 c.	50 cs.	561
New York,			500	2,610
Sydney,	19	4		1,874

Potassium Prussiate—

Montreal,	5 cks.		£112
Odessa,	2		38
Genoa,	2 t.	4 c.	145
Yokohama,		10	35

Salammoniac—

Constantinople,	5 t.		£155

Salt Cake—

Antwerp,	140 t.		£245
Brussels,	145		240

Saltpetre—

Cape Town,		13 c.	£12
Corunna,		18	17
Rio de Janeiro,		16	17

Sheep Dip—

Falkland I,	9 cks.		£50
Gallegos,	122	160 kgs.	1,044
	1 t.	380 dms.	
Brisbane,	4	1 c.	175
Sydney,	1	17	25
Melbourne,	1	5	20

Soda—

Tercira,	8 t.	17 c.	£77
Melbourne,		15	—

Sodium Bicarbonate—

Normanton,	1 t.		£8
Singapore,	1	13 c	17
Malta,	1	4	7

Strychnine—

Brisbane,		1 cs.	£10

Sulphur—

Cape Town,	15 kgs.		£6

Sulphuric Acid—

Malta.		10 cs.	£15
Karachi,		20	36
Melbourne,		40	30
Durban,		15	27

Superphosphates—

Cape Town,	200 t.		£634

Tartaric Acid—

Antwerp	1 t.	5 c.	£142
Bombay,		qnty.	3
Cape Town,		2	11
Dunedin,		5	27
Yokohama,	1		109

LIVERPOOL.

Week ending November 22nd.

Acetic Acid—

Copenhagen,	2 t.		£40
Pernambuco,		10 c.	8

Ammonia—

B. Ayres,		50 cs.	£292

Ammonium Carbonate—

Genoa,	70 kgs.			£—
Venice,	25			—
B. Ayres,		18 c.	2 q.	29
Ceara,		10		17
Calcutta,		5		15
Gothenburg,	3 t.	2	2	34
Marseilles,	1	4		36

Ammonium Muriate—

Antwerp,		13 c.		£19
New York,	4 t.	13		118
Odessa,	5	13	1 q.	151
Philadelphia,	17	15	3	418
Bilbao,	4		2	101
Melbourne,	4	11		96
Naples,	1	2		25

Ammonium Sulphate—

New York,	25 t.	5 c.		£270
Alicante,	25	11		274
Venice,			300 bgs.	266
Malaga,	15			191
Demerara,	215	10		2,344
Bordeaux,	5			60
Tarragona,	15			184
Cullera,	50	5		530
Newport News,	100	15		1,102
Las Palmas,	24	18		266
Lisbon,	10		1 q.	110
Cevita Vecchia,	10	7		110
Valencia,	195	12	1	2,296

Basic Slag—

Granville,	702 t.		£530
Demerara,	125		208

Bleaching Powder—

Amsterdam,	124 cks.		
Baltimore,	126		
Bilbao,	81		
Boston,	238		
E. Pepperell,	50		
Fiume,	43		
Ghent,	15		
Naples,	29		
Norrkoping,	3		
Philadelphia,	122		
Rotterdam,	22		
Rouen,	92		
San Francisco,		75 brls.	
Seville,	10		
Tampico,		10	
Turin,	6		
Windsor Mills,	31		

Boracic Acid—

Portland, M.,	1 t.	10 c.	£40
Adelaide,	1		26
Havana,		70	9

Borax—

Copenhagen,	10 t.	7 c.	2 q.	£172
Antwerp,	1	9	2	25
Portland, M.,	3	2	2	57
Alexandria,	1			16
Melbourne,	2			30
Cardenas,	1	2		18
Havana,	6	5	2	117

Calcium Chloride

New York,	10 t.		£20
Cape Town,	10	2 c.	23
Bari,	30	2	67
Boston,	39	14	75
Melbourne,	10	3	22

Caustic Soda—

Alexandria,	80 dms.	
Alicante,	40	
Amsterdam,	325	
Antwerp,	104	
Barcelona,	230	74 cks.
Bari,	69	
Brisbane,		13 cs.
Cabedello,	15	
Catania,	35	
Ceara,	105	
Dunkirk,	50	
Fiume,	101	
Galatz,	141	
Gefle,	133	178 brls.
Genoa,	235	
Ghent,	48	
Hamburg,	269	
Havana,	50	
Hiogo,	238	
Kobe,	59	
Malaga.	110	12
Marseilles,	100	
Melbourne,	288	
Montreal,	180	
Nagasaki,	200	
Naples,	115	
Norrkoping,	8	
Paris,	235	
Pernambuco,	70	
Philadelphia,	50	
Rangoon,	10	
Rio de Janeiro,	12	
Rotterdam,	80	6 cks.
San Francisco,	175	85 pks.
Santander,	50	
Savanilla,	25	
Salzaete,	15	
Seville,	50	
Sfax,	10	
Sourabaya,	10	
Stettin,	18	
Trieste,	75	
Tunis,	7	
Tutin,	31	
Valencia,	16	
Venice,	26	
Yokohama,	50	

Chemicals *(otherwise undescribed)*

Valencia,	48 t.	1 c.		£38
Forcados,			1 cs.	6
Leghorn,	1			29
Melbourne,	8			128
Sydney,	3	10		56
Guayaquil,	2	1	2 q.	9
Porto Alegre,	3	3	1	15
Patras	2	8		11
Salahora,	1			5
Cape Town,	1	2	1	8
B. Ayres,	2	1		10
Adelaide,		10		3
Lisbon,	1			29
Tangiers,	1	3	1	6
Casabianca,	1	8	2	7
Hamburg,	1			29
Odessa,	11	10	1	352
Marseilles,		19	2	29
Madras,	5½ tcs.			5
Cairo,		50 brls.		162
Boston,				208
Melbourne,	3 cks.			21
Calcutta,				117

China Clay—

Baltimore,	931 cks.	
Bombay,	365	
Boston,	1,668	
New York,	78 t.	4 c.

Oporto, 5 14
Philadelphia, 100
Portland, M., 400
Ranegange, 38
Riverview, 50
Trieste, 10

Citric Acid—
Oporto, 1 kg. £10

Coal Products
Aniline Colours
Boston, 6 kgs.
Canada, 3 cks.
New York, 62 1 cs.
Aniline Dye
Barcelona, 13 kgs.
Aniline Oil
Barcelona, 20 brls.
Aniline Salt
Barcelona, 19 brls.
Boston, 41 cs.
Piræus, 15 cks.
Salonica, 3 pks.
Carbolic Acid
Montreal, 5 c. 3 q. £18
Antwerp, 5 t. 100
Vera Cruz, 19 1 13
Malta, 2 13
Rotterdam, 5 100
Algiers, 2 cks. 7
Rio de Janeiro, 50 dms. 13
Creosote Salt
Dunkirk, 150 bgs.
Pitch
Nantes, 325 t.
Tar
Galatz, 20 brls.
San Francisco, 153
Sierra Leone, 15 kgs.

Copper Sulphate—
Brindisi, 8 t. 19 c. £160
Odessa, 17 2 2 q. 409
Catania, 15 1 1 380
Bordeaux, 54 3 3 1,287
Nantes, 11 4 3 269
Algiers, 47 1 1,044
Tampico, 9 10
Antwerp, 9 18 231
Rio de Janeiro, 1 2 23
Christiania, 7 8
Vigo, 10 241

Disinfectants—
Bombay, 2 t. 7 c. 3 q. £15
B. Ayres, 12 1 6
Calcutta, 6 cs. 18
Rio de Janeiro, 15 dms. 11
Shanghai, 20 36

Dried Blood—
Teneriffe, 10 t. £77

Glycerine—
Santander, 2 c. £12
Leghorn, 7 1 q. 17
New York, 40 t. 946
Vancouver, 47 18 2,060
Hamburg, 4 12
Rotterdam, 19 13 805
N. Orleans, 24 13 1,060

Guano—
Seville, 12 t. 6 c. £77

Hydrochloric Acid—
Axim, 1 cs. £5

Magnesite Ore—
Galveston, 30 t. 7 c 1 q. £63

Magnesium Chloride—
Lisbon, 5 t. 17 c. £15

Manure—
Teneriffe, 10 t. 1 c. £100

Nitric Acid—
Axim, 2 cs. £5

Oxalic Acid—
San Francisco, 5 t. £155

Paint—
Alexandria, 215 kgs.
Arica, 6 cks.
Beyrout, 23 pks
B. Ayres, 85 cs.
Calcutta, 6 cks
Callao, 75 dms.
Cartagena, N.G., 50
Cienfuegos, 2
Demerara, 45
Gibraltar, 68 pks.
Hamburg, 11
Livingstone, 4 dms.
Madrid, 4
Manaos, 40
M. Video, 46 cs.
Montreal, 11 cks.
Para, 19
Pernambuco, 15
Punta Arenas, 2
Rotterdam, 21
Sanchez, 12
Santa Marta, 24
Sherbro, 56
St. Croix, W.I., 36
Shanghai, 100
Talcahuano, 15 brls.
Yokohama, 400

Painters' Colours—
Akassa, 20 kgs.
Constantinople, 350
Havana, 56
Manaos, 24 cks.
Piræus, 3
Salaverry, 7 cs.
Santiago de Cuba, 20 3 cks. 40 cs. 20 dms.
Sydney, 380 80 3 brls.
Talcahuano, 25
Valparaiso, 100 340

Paraffin Wax—
Legborn, 164 bgs.
Naples, 145
Odessa, 10
Rio de Janeiro, 5 cs.
Rouen, 10
Smyrna, 18
Valparaiso, 200

Phosphorus—
Hiogo, 10 cs. £75
Kobe, 40 330
Shanghai, 24 188
Vera Cruz, 5 48

Phosphorus (Amorph.)—
Hiogo, 10 cs. £105
Vera Cruz, 5 65

Potash—
Madeira, 4 c. £6

Potassium Bichromate—
Hiogo, 3 t. 15 c. £117
Mexico City, 6 210
Rio de Janeiro, 12 18
Vera Cruz, 4 160

Potassium Carbonate—
St. John, N.B., 4 t. 3 c. £8

Potassium Chlorate—
Brisbane, 10 c. £15
Hiogo, 18 t. 10 584
Malmo, 1 30
New York, 4 120
Shanghai, 5 10 181
Sydney, 7 212
Tampico, 5 8
Vera Cruz, 3 100

Potassium Prussiate—
Genoa, 4 cks. £71
Oporto, 1 12

Salammoniac—
Beyrout, 1 t. 13 c. £56
Bilbao, 1 38
Salonica, 2 5 80
Syra, 5 1 q. 10
Trieste, 2 62

Salt—
Abonnema, 20 t.
Antwerp, 320
Axim, 2 10 c.
Benin, 30
Bombay, 50 cs.
Boston, 200
B. Ayres, 33 15 c.
Calcutta, 507
Cameroons, 27
Cape Palmas, 12 10
Cleveland, 100
Conakry, 123 16
Copenhagen, 95
Galveston, 500
Cape Town, 50
Ghent, 185
Halifax, 266 12
Isles de Los, 100 8
Matanzas, 50
M. Video, 3 7
New York, 10
Oagawa, 19 16
Opobo, 99
Para, 85 12
Puget Sound, 200
Rosario, 19 12
Sapeli 10
Sierra Leone, 149 12
Trinidad, 37 6
Vancouver, 150
Victoria, B.C., 1,500
Yokohama, 2 3
Valparaiso, 3 11

Salt Cake—
Antwerp, 120 t. £150
Hong Kong, 3 8
Philadelphia, 167 14 c. 312
San Francisco, 5 1 12

Saltpetre—
Cabedello, 11 c. 3 q. £10
Para, 2 t. 17 62

Sheep Dip—
Calcutta, 1 t. 1 c. £20
B. Ayres, 92 12 3 q. 2,425
M. Video, 4 15 83
Punta Arenas, 10 57
Talcahuano, 100 dms. 10 cs. 110

Soap—
Adjuah, 100 bxs.
Alexandria, 50
Algoa Bay, 500
Amsterdam, 225 cs.
Antwerp, 28
Axim, 100
Barbadoes, 452
Beyin, 200
Beira, 100
Bombay, 500 97
Brussels, 1,900
Calcutta, 13
C. C. Castle, 500
Cape Town, 2,000
Colombo, 180
Constantinople, 20 brls.
Demerara, 1,205
Dominica, 60
E. London, 154
Genoa, 28
Gibraltar, 685 23 pks.
Gd. Canary, 405
Gd. Bassa, 140
Greytown, 600
Hong Kong, 1,000
Karachi, 250
King William's Town, 400
Kingston, Jam., 80 cs.
Las Palmas, 1,123
Madeira, 10
Madras, 5
Martinique, 201
Montreal, 5 cks.
New York, 50 10
Old Calabar, 570
Patras, 10
Piræus, 25
Penang, 45
Pernambuco, 1
Philadelphia, 40
Pt. Natal, 130
Rangoon, 1,210
Rotterdam, 360
Salonica, 167
Samarang, 140
Santander, 1
Sapeli, 100
Sierra Leone, 214
Singapore, 430
Smyrna, 100
St. Lucia, 110
Shanghai, 12,091
St. Thomas, 205
Tientsin, 100
Teneriffe, 700
Trieste, 1
Trinidad, 1,450
Valparaiso, 75 4 bdls.
Vera Cruz, 3
Victoria, B. C., 1,000
Warri, 100

Soda Ash—
Adelaide, 121 cks.
Boston, 1,472 bgs. 37 dms. 145 cks.
Baltimore, 1,944 200 tcs.
B. Ayres, 158
Ceara, 10 brls.
Corfu, 25
Dunedin, 30
Genoa, 400
Hiogo, 119
Hong Kong, 55
Kingsville, 100
Kobe, 329
Lyttelton, 36
Rio de Janeiro, 450 208
Madras, 20
Maranham, 25
Melbourne, 126
Newport News, 21
New York, 120 60 tcs. 10
Oporto, 10
Samarang, 32
Santos, 40
Sao Paulo, 20
Sourabaya, 110 dms.
Tutin, 102
Venice, 149 cks.
Vera Cruz, 25
Windsor Mills, 320
Zante, 50 brls.

Soda Crystals—
Alexandria, 50 brls.
Bari, 10
Boston, 280 cks.
Constantinople, 220
N. Orleans, 168
New York, 280
Talcahuano, 50 kgs.

Sodium Acetate—
Vera Cruz, 4 cks.

Sodium Bicarbonate—
Adelaide, 200 kgs.
Alicante, 70
Antwerp, 50 bgs. 15 kgs.
Calcutta, 60 100 brls.
Chemulpo, 100
Christchurch, 40
Dunedin, 20
Durban, 40
Hiogo, 250
Madras, 25
Madrid, 130
Melbourne, 81
Mexico City, 100
M. Video, 50
Odessa, 200
Pt. Natal, 70
Rangoon, 100
Rosario, 25 5
Seville, 55 9 cks.
Tonga, 24
Valencia, 100 bgs.
Vigo, 8
Wellington, 220 kgs.
Zanzibar, 24

Sodium Carbonate—
New York, 56 brls.

Sodium Chlorate—
Boston, 175 kgs.
Philadelphia, 100
Reval, 100
Rotterdam, 30

Sodium Hyposulphite—
Naples, 4 cks.
San Francisco, 85 kgs.

Sodium Silicate—
Bilbao, 35 brls.
Kingston, 10
Nantes, 7 dr

Sodium Sulphate—
Bombay, 85 cks.

Starch—
Barcelona, 67 cks.

Sulphur—
Boston, 160 t. 4 c.
Christiania, 100

Sulphuric Acid—
Manaos, 18 c.
Pt. Nolloth, 1 t. 3

Superphosphates—
Adelaide, 700 t.
Gd. Canary, 1
Valencia, 575 6 c. 2 q.

Varnish—
B. Ayres, 8 cs.
Gijon, 2 cks.
Havana, 9
M. Video, 33

White Lead—
Akassa, 10 kgs.
Bahia, 222
Lisbon, 4 cks.
Piræus, 4

Zinc Chloride—
Bombay, 17 t. 16 c.

MANCHESTE

Week ending November 22

Bones—
Beauvais, 561 bgs.
Treport, 225

Bone Waste—
Antwerp, 87 bgs.

Chemicals (*otherwise undesc*
Ghent, 1 ck.
Jaffa, 5 brls.
Mainz, 4
Rotterdam, 5
Tripoli, 25

Coal Products (*otherwise und*
Germany, 18 cks.
Hamburg, 66
Lille, 10 brls.

Coal Products—
Aniline Colours
France, 1 ck.
Germany, 1
Aniline Salt
Germany. 10 cks.
Lille, 5 brls.
Carbolic Acid
Rouen, 1 ck. 1 cs. 365 b
Extract
Germany, 1 ck.
Pitch
Treport, 89 t. 10 c.

Tar
Alexandria, 2 brls.
Tar Oil
Hamburg, 5 brls.
Paris, 25
Toluol
Germany, 25 dms.
Colours—
Germany, 1 ck.
Copperas—
Alexandria, 102 brls.
Dyestuffs *(otherwise undescribed)*
Bombay, 1 dm.
Glue—
Antwerp, 10 cks.
Germany, 27
Rotterdam, 11
Glycerine—
Rouen, 20 dms.
Iron Sulphate—
Alexandria, 140 brls.
Linseed Oil—
Jaffa, 8 brls.
Malta, 2
Paint—
Beyrout, 5 kgs.
Bombay, 6 dms.
Jaffa, 3 cks.
Malta, 2 pks.
Painters' Colours—
Ghent, 1 cs.
Paraffin Wax—
Paris, 40 brls.
Rotterdam, 2 cs.
Rouen, 40 bls.
Salammoniac—
Alexandria, 20 cks.
Soap—
Alexandria, 1 ck.
Tallow—
Alexandria, 1 ck.
Turpentine—
Alexandria, 5 brls. 20 dms.
Varnish—
Malta, 1 cs.
Zinc Chloride—
Germany, 15 cks.
Rotterdam, 1

HULL.

Week ending November 18th.

Alkali—
Riga, 69 cks.
Trieste, 18
Bleaching Powder—
Riga, 15 cks.
Borax—
Reval, 1 cs.
Caustic Soda—
Riga, 472 dms.
Chalk—
Trieste, 108 cks.
Chemicals *(otherwise undescribed)*
Abo, 5 cs.
Amsterdam, 55 cks. 12 btls.
Antwerp, 2
Bergen, 539 slbs. 5 pks.
Bremen, 15 cks.
Christiania, 2,645 slbs.
Copenhagen, 5 cks. 8
Dronsheim, 300
Ghent, 3
Gothenburg, 1 8 10
Hamburg, 4 51
Konigsberg, 2
Reval, 17
Riga, 115
Rotterdam, 20 10
St. Petersburg, 19
Stettin, 3 4
Stockholm, 3 20 btls.
Coal Products—
Pitch
Antwerp, 215 t.
Tar
Amsterdam, 6 cks.
Bremen, 3
Hamburg, 2
Cottonseed Oil—
Amsterdam, 52 t. 2 c.
Antwerp, 71 2
Bremen, 19
Copenhagen, 11 9
Dunkirk, 112 2
Gothenburg, 7 12
Hamburg, 24 14
Konigsberg, 19
Rotterdam, 27 10
Rouen, 1 1
Stettin, 5 19
Dyestuffs *(otherwise undescribed)*
Bergen, 4 cs.
Drontheim, 1
Hamburg, 1
Stettin, 59 bgs.
Linseed Oil—
Christiania, 3 t. 4 c.
Copenhagen, 1 14
Drontheim, 5 2
Rotterdam, 1 15
Manure—
Dunkirk, 50 t.
Ochre—
Hamburg, 5 cks.
Painters' Colours—
Antwerp, 165 cks. 2 cs. 100 pks 156 dms.
Amsterdam, 12
Bremen, 13 16 42
Copenhagen, 3
Danzig, 21
Drontheim, 3 pks.
Harlingen, 1 1 200
Hamburg, 29 3 2 dms.
Hango, 1
Konigsberg, 20
New York, 187
Rotterdam, 6 1 8 pks.
Rouen, 54
St. Petersburg, 8 dms.
Stettin, 1 3
Stockholm, 1
Trieste, 3
Soap—
Drontheim, 40 cs.
Ghent, 15
Gothenburg, 2
Tallow—
Abo, 14 cks.
Rotterdam, 6
Varnish—
Antwerp, 2 cs.
Danzig, 1
Gothenburg, 1
Stockholm, 4

GLASGOW.

Week ending November 23rd.

Ammonium Carbonate—
Hamburg, 1 t. 3 c.
Rotterdam, £12
Ammonium Sulphate—
Hamburg, 101 t. 8 c.
Malaga, 104 1 2 q.
Mauritius, 76 14 1
Boracic Acid—
Hiogo, £64
Borax—
Christiania, £13
Hiogo, 58
Rotterdam, 116
Coal Products—
Benzine
St. Nazaire, £8 1 s.
Carbolic Acid
Rotterdam, £500
Pitch
Christiania, £25
Gothenburg, 280
Hamburg, 10 t. 10 c.
Tar
Mauritius, £26 11 s.
Disinfectants—
Singapore, £22 8 s.
Dyestuffs—
Sumach Extract
Gothenburg, £21
Gelatine—
America, £261
Gutta Percha—
Amsterdam, £44 12 s.
Linseed Oil—
Shanghai, 3 t. 12 c. 3 q.
Litharge—
Calcutta, £20
Paint—
Bombay, £25 13 s.
Calcutta, 474
Hong Kong, 35
Kingston, Jam., 27
St. John's, N'fd., 52 17
Painters' Colours—
Hiogo, £55
Singapore, 89
Paraffin Wax—
Rotterdam, £20
Potassium Bichromate—
Antwerp, £140
Hiogo, 884
Philadelphia, 655
Rotterdam, 1 6
Potassium Prussiate—
New York, £433
Potassium Sulphate—
Malaga, £46
Red Lead—
Pt. Said, £79
Shanghai, 10 t. 10 c.
Red and White Lead—
Calcutta, £37
Shale Residuum—
Algoa Bay, £30
Soap—
Algoa Bay, 1 t. 12 c. 2 q.
Bombay, 2 12 2
Halifax, 1 9 1
Singapore, 3 2
Sodium Bichromate—
Philadelphia, 6 t. 11 c.
Starch—
Rotterdam, £15
Superphosphates—
Malaga, 10 t.
Tallow—
Riga, 11 t.
Turpentine—
Singapore, £20
Varnish—
Calcutta, £24 15 s.

TYNE.

Week ending November 18th.

Alkali—
Amsterdam, 53 t. 3 q.
Hamburg, 15 16 c. 2
Alum—
Rotterdam, 10 t. 1 c. 3 q.
Ammonia—
Aarhuus, 7 c.
Ammonium Carbonate—
Nakskov, 11 c. 3 q.
Antimony—
Amsterdam, 10 cks.
Antwerp, 1 t.
Hamburg, 9
Montreal, 2
Rotterdam, 4 10 c.
Barium Binoxide—
Antwerp, 10 t. 17 c
Rouen, 59 13 3 q.
Barium Carbonate—
Hamburg, 10 t. 4 c.
Rotterdam, 50
Rouen, 51 13 2 q.
Barytes—
Montreal, 16 t. 3 c. 2 q.
Basic Slag—
Rotterdam, 117 t
Bleaching Powder—
Amsterdam, 26 t. 12 c. 2 q.
Antwerp, 5 14 1
Bergen, 8 8 1
Christiania, 21
Drontheim, 10 8
Gothenburg, 20 9 2
Hamburg, 40 17
Rotterdam, 16 7 1
Bones—
Antwerp, 8 t. 11 c.
Caustic Soda—
Antwerp, 20 t. 1 q
Copenhagen, 8 11 c. 2
Gothenburg, 9 17 1
Hamburg, 11 12
Rouen, 5 2
Stavanger, 1 3 1
Chemicals *(otherwise undescribed)*
Montreal, 36 t. 2 c.
Nakskov, 10 2
China Clay—
Copenhagen, 2 t. 1 c. 2 q.
Chloride of Lime—
Ergasteria, 6 c.
Coal Products—
Anthracene
Rotterdam, 68 t. 12 c. 3 q.
Linseed Oil—
Montreal, 9 t. 15 c. 3 q.
Litharge—
Gothenburg, 15 c. 3 q.
Lisbon, 5 t. 5 3
Rouen, 1 7 2
Magnesia—
Hamburg, 17 c. 1 q.
Lisbon, 15
Ochre—
Montreal, 7 t. 8 c. 3 q.
Paint—
Antwerp, 1 t. 10 c.
Bergen, 7
Copenhagen, 2
Hamburg, 2
Montreal, 1 5 3 q.
Painters' Colours—
Rotterdam, 7 dms.
Red Lead—
Amsterdam, 1 t. 1 c. 1 q.
Bergen, 20 cks. 3 t. 4 3
Christiania, 5 1
Hamburg, 29 9 3
Lisbon, 12 8 1
Montreal, 2 12 2
Nakskov, 5 2
Stavanger, 2 16 1
Soap Lyes—
Hamburg, 20 dms.
Soda—
Amsterdam, 30 t.
Sodium Hyposulphite—
Montreal, 20 t. 3 c. 3 q.
Sodium Sulphate—
Antwerp, 60 t.
Lisbon, 5 1 c. 2 q.
Tallow—
Rotterdam, 2 t. 18 c.
Varnish—
Gothenburg, 1 c. 1 q.
White Lead—
Copenhagen, 3 t. 1 c. 1 q.
Lisbon, 3 2 1
Montreal, 28 18

GOOLE.

Week ending November 15th.

Alkali—
Rotterdam, 5 cks.
Caoutchouc—
Boulogne, 2 cs.
Chemicals *(otherwise undescribed)*
Hamburg, 7 pks. 4 dms.
Rotterdam, 20 cks.
Coal Products *(otherwise undes.)—*
Amsterdam, 150 cks.
Antwerp, 1 dm.
Boulogne, 98 3 cs. 37
Ghent, 2
Hamburg, 8 2
Rotterdam, 13 5 25
Coal Products—
Benzol
Dunkirk, 1 ck.
Rotterdam, 11 dms.
Pitch
Antwerp, 310 t.
Dyestuffs *(otherwise undescribed)*
Hamburg, 2 cks. 1 cs.
Ghent, 2 10
Rotterdam, 44
Manure—
Ghent, 250 bgs.
Painters' Colours—
Amsterdam, 1 ck.
Boulogne, 2 4 cs.
Ghent, 5 1
Rotterdam, 4

GRIMSBY.

Week ending November 18th.

Alkali—
Antwerp, 3 cs.
Dieppe, 10 kgs.
Hamburg, 100 dms.
Chemicals *(otherwise undescribed)*
Hamburg, 1 ck.
Coal Products *(otherwise undes.)—*
Dieppe, 151 cks.
Hamburg, 3 pks.
Painters' Colours—
Antwerp, 19 cks. 7 pks.
Hamburg, 2 brls.
Rotterdam, 5

PRICES CURRENT. WEDNESDAY, Nov. 29

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. at maker's works, or at usual ports of shipment in U.K. The price in different localities m

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	6/6 & 8/9		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	2	6
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	1	2
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, 880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¾
,, Muriate .. .. per ton	23	10	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-		
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	11	7	6
,, ,, (grey) Hull .. .. ,,	11	5	0
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4¼
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	6	0	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	7	6
China Clay (at Runcorn) in bulk .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	9¾
,, 50/90 ,, ... ,,	0	0	10¾
Carbolic Acid (crude 60°) .. .. ,,	0	2	10
,, (crystallised 40°) .. .. .. per lb.	0	0	10½
,, (liquid 95/97%) .. .. .. per gallon	0	1	3
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	11	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	4½
Copper .. .. per ton	73	12	6
,, Sulphate .. .. ,,	24	17	6
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	33	10	0
,, (distilled S.G. 1260°) .. .. ,,	51	10	0
Iodine .. .. nett, per oz.	0	0	7½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	18	15	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	23	15	0
,, ,, (brown ,,) .. .. ,,	20	0	0
,, Carbonate (white lead) pure .. .. .. ,,	23	10	0
,, **Nitrate** .. .. ,,	25	0	0

Lime, Acetate (brown) (ex ship) .. .. .. per ton			
,, ,, (grey) (ex ship) .. .. ,,			
Magnesium (ribbon and wire) .. .. per oz.			
,, Chloride (ex ship) .. .. per ton			
,, Carbonate .. .. per cwt.			
,, Calcined Magnesia .. .. per ton			
,, Sulphate (Epsom Salts) .. .. .. per ton			
Manganese, Sulphate .. .. ,,			
,, Borate .. .. per cwt.			
,, Ore, 70% .. .. per ton			
Methylated Spirit, 61° O.P .. .. per gallon			
Naphtha (Wood), Solvent .. .. ,,			
,, ,, Miscible, 60° O.P. .. .. .. ,,			
Oils:—			
Cotton-seed .. .. per ton			
Linseed .. .. ,,			
Stearine .. .. ,,			
Phosphorus (Yellow) .. .. per lb.			
,, (red) .. .. ,,			
Potassium Bichromate .. .. nett ,,			
,, Carbonate, 90% (ex ship) .. .. .. per ton			
,, Chlorate .. .. per lb.			
,, Cyanide, 98 % .. .. ,,			
,, Hydrate (Caustic Potash) 90 % .. .. per ton			
,, ,, ,, 75/80 % .. ,,			
,, Potash Hydrate Liquid 50 % .. .. ,,			
,, Nitrate (refined) .. .. ,,			
,, Permanganate .. .. per cwt.			
,, Prussiate Yellow .. .. per lb.			
,, Sulphate, 90 % (ex ship) .. .. .. per ton			
,, Muriate, 80 % ,, ... ,,			
Silver (metal) .. .. per oz.			
Sodium (metal) .. .. per lb.			
,, Carb. (refined Soda-ash) 48 % .. nett per ton			
,, ,, (Caustic Soda-ash) 48 % .. ,, ,,			
,, ,, (Carb. Soda-ash) 48 % .. ,, ,,			
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,,			
,, ,, (Soda Crystals) .. .. .. ,, ,,			
,, Acetate (ex-ship) .. .. ,,			
,, Arseniate, 45 % .. .. ,,			
,, Chlorate .. .. per lb.			
,, Borate (Borax) .. .. nett per ton			
,, Bichromate .. .. ,, per lb.			
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton			
,, ,, (74 % Caustic Soda) ,, ,, ,,			
,, ,, (70 % Caustic Soda) ,, ,, ,,			
,, ,, (60 % Caustic Soda) .. ,, ,,			
,, ,, (pure liquor 90° Tw.) .. ,, ,,			
,, ,, 77/78 % powdered (99 % hydrate) ,,			
,, Bicarbonate (cwt. kegs) .. .. ,,			
,, Hyposulphite .. .. ,,			
,, Manganate, 25 % .. .. ,,			
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.			
,, Nitrite, 98 % .. .. per ton			
,, Phosphate .. .. ,,			
,, Prussiate .. .. per lb.			
,, Silicate (glass) .. .. per ton			
,, ,, (liquid, 100°Tw.) .. .. .. ,,			
,, Stannate, 40 % .. .. per cwt.			
,, Sulphate (Salt-cake) .. .. per ton			
,, ,, (Glauber's Salts) .. .. .. ,,			
,, Sulphide (crystals) .. .. ,,			
,, Sulphite .. .. ,,			
Strontium Hydrate, 100 % .. .. ,,			
Sulphocyanide Ammonium, 95% .. .. per lb.			
,, Barium, 95 % .. .. ,,			
,, Potassium .. .. ,,			
Sulphur (Flowers) .. .. per ton			
,, (Roll Brimstone) .. .. ,,			
,, Brimstone: Best quality .. .. ,,			
Superphosphate of Lime (26 %) .. .. ,,			
Tallow .. .. ,,			
Tin Crystals .. .. per lb.			
,, English Ingots .. .. per ton			
Zinc (Spelter) .. .. ,,			
,, Chloride (solution, 100° Tw.) .. .. .. ,,			
,, Sulphate, Crystal .. .. ,,			

f.o.r. w'ks.

10 ton lots

THE

CHEMICAL TRADE JOURNAL

AND

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PRESERVATIVES IN FOOD.

ACCORDING to our forefathers there is wisdom in the multitude of counsellors, and therefore there should be an overwhelming store of wisdom in the evidence of those who have expressed their beliefs and disbeliefs to the Departmental Committee of the Local Government Board now inquiring into the advisability of allowing, or suppressing, the employment of chemical preservatives in milk, cream, butter, hams, and other food products.

On the other hand, there is a proverb about the evil attending a multiplicity of cooks, and although the scope of the inquiry does not extend to the making of broth, it does essentially comprehend foods. This close analogy to broth, consequently, makes us incline to the conviction that the latter saying is truer, and more apposite than the former, in this case.

The principles involved in the multiplication of counsellors would seem to require qualifying with a saving clause to the effect that the benefits to be derived can only be enjoyed provided the counsellors agree with one another, within reasonable limits. Now, as regards the medical profession, at all events, there would appear to be a North Pole and a South Pole party; and even assuming that these two extreme parties *do* desire to shorten the register of their views, they seem to set out Eastwards and Westwards round the globe, only to find that the South Pole party has reached the North Pole, just as the latter party has arrived at the South; and so they are as far off approaching the Equator as ever.

Dr. Walford would prohibit all preservatives in milk because they are the source of so much fatal infantile diarrhœa. Dr. Wild, however, attributes the summer scourge to sour milk, and so *per contra* argues it is better to have sound milk, preserved with boracic acid, than run the risk of feeding children on milk which has "turned." Again, the Irish butter makers say they cannot do without the use of preservatives, and that to prohibit them would be an injustice, particularly so at the very moment when they are beginning to recover ground after the cutting competition of Danish unpreserved butter; to which, in turn, Professor James Long (and he should be an able judge), ejaculates *Mures decumani*, which, being interpreted, means "Rats!"

Now, after looking over the evidence, it would seem that it is of the greatest importance to sift the useful from the fanciful, and the feasible from the fads.

Anything that is done for mere effect or appearance to no useful purpose, and is, or may be, hurtful to health—to wit, colouring peas with copper sulphate—should be forbidden by a law which makes a reasonable allowance for the fanciful public, who do not mind being slightly poisoned so long as things look "nice." At the same time, the general advisability and sweet reasonableness of permitting the use of preservatives which serve a *serviceable* purpose, must be kept so clearly in view as to exclude all visions of extremes.

For example, among poor people if 4d. is spent on milk—it is spent. The daily allowance to meet the supply of the children's food is gone. If the milk goes sour there is nothing to spare to purchase a fresh supply until Saturday, and the wages come round again. It is a choice between sour food or none at all that day, so the chances are the children will be given the sour milk—or take it themselves if it be withheld. In such cases (and thousands of similar ones occur daily) would it not be better to run the risk of boracic acid complications than the almost inevitable diarrhœa, engendered by tainted milk?

And so in other instances. People will not go back to the salted meats of 20 years ago. Even salt was, and is, a fruitful source of dire scorbutic complaints, and would be again. In the face of the experiments made by Dr. Wild, a skin specialist, we would rather run the risks of borax and boracic acid than those of salt, though, of course, we would still rather do without all of them. But which is the lesser evil, the danger of unsound food or the small doses of chemical preservatives, provided certain antiseptics are tabooed? From first to last it is purely a question of expediency, and if, as Dr. Voelcker and others have suggested, it was compulsory to declare the presence of preservatives, there would be little or no difficulty in meeting the exceptional cases in which medical men report injurious consequences.

THE CALICO-PRINTERS' COMBINE.

THE signatories of the articles of association of the calico-printers' amalgamation met at Manchester last week for the purpose of electing the first directors of the association. It appears that the lines adopted by the Bradford Dyers' Association have been largely followed in the case of the calico-printers, and that the board will be a large one, representing nearly all the firms composing the amalgamation, which number upwards of 50. Some of the larger firms will have a proportionately large representation on the board. It is expected that the prospectus will be published within the next fortnight. Of the capital of the company the following amount will form the first and present issue:—£4,800,000. in ordinary shares of £1. each, and £3,200,000. in 4 per cent. debenture stock.

Various authorities, in giving a list of the firms taken over by the new Calico-Printers' Combine, have given Steiner and Co., Ltd., Church, Foxhill Bank, and Sunnyside, capital £1,350,000., as one This firm is not joining the combine. The select committee of the Calico-Printers' Combine had the option of buying a controlling interest at £17. for the £10 ordinary share (market quotation 20-20¼); but, we believe, were debarred from altering the management or taking any active part in the works.

Messrs. F. Steiner and Co., Ltd., have issued the following circular:

"Church Works, Church, Lancashire,

"November 30, 1899.

"To the shareholders of F. Steiner and Co., Ltd.

"Your directors feel that the shareholders will expect to know whether their company is to be merged in, or affected in any way by the new Calico Printers' Association, Ltd.

"We therefore beg to inform you that the promoters of that association approached your directors, and after prolonged negotiations terms were ultimately formulated which it was believed would be mutually advantageous for the federation of F. Steiner and Co, Ltd., with the association, but not for its absolute inclusion

"Since its actual formation it has been deemed by those concerned in organising the new association quite unnecessary for the attainment of their object at the present time to interfere in any way with your already prosperous company.

"We have the honour to be, your obedient servants,

"J. F. M. P. Hartmann, Chairman.
"George E. Nuttall, Managing Director.
"H. J. Harvey, Secretary."

If the select committee of the Calico-Printers' Combine had the option of Steiners' shares at 17, and did not exercise it, it will no doubt be able to give a good reason for its action. The committee includes the cream of trade experience, and probably knows equally well how to make a "fast" colour, how many inches there are in a yard, and what are the elements of a successful combine.

CONDEMNED CONDENSED MILK.

THREE dust vans containing a consignment of condensed milk seized by the sanitary authorities of Bermondsey, on the ground that the contents were unfit for food, were inspected last week by Mr. Slade at Southwark Police Court. Mr. Henry Thomas, chief sanitary inspector to the Vestry, stated that the consignment consisted of 181 cases, each containing four dozen tins of condensed milk At noon on Wednesday witness visited one of the railway arches in Rouel-road, occupied as a stable. One of the arches was locked, and he inquired of the person in charge what he had there. The reply was: "Condensed milk; it is not mine, I am storing it for Mr. Beetham, of 16, Water-lane." Witness found from the directory that this gentleman was a canned goods merchant. On gaining admission to the arch he saw in the centre some bright-looking tins, which the caretaker said had been sorted out for delivery. He fetched the medical officer of health, and together they examined the best of the tins, some of which had just been inspected by the magistrate. Witness examined every case, and from each he opened two, three, and sometimes five tins. In his opinion the milk was quite unfit for the food of man. The best of it was sour, the majority of the tins were blown, and several appeared to have been resoldered. He asked the man in charge where the milk came from, and he replied that 64 cases were from Kirby and Tongue, who were wholesale and retail grocers The tins as they stood in the cases were covered with what was known as cheesemoss, which indicated that they had been stored in retail shops, and cheese stored on them. If they were sound goods Kirby and Tongue would have sold them, because that firm was not one that would run any risk. Witness asked for an order for the destruction of the milk. Mr. Edward W. Beetham said he was the owner of the milk, and he desired to say that Messrs. Kirby and Tongue did not sell the milk to him. He desired to exonerate the firm. Mr. Coates (clerk): Do you say that any of the milk is fit for food? Mr. Beetham: I say that some is fit for manufacturing purposes. Mr. Coates: What proportion do you say is fit for the food of man? Mr. Beetham: I should think that out of some tins quite one-third is fit for use. Mr Coates: As food for man? Mr. Beetham: For confectionery or manufacturing purposes. The tins should be retained in the possession of the Vestry until an analysis is made to prove that the milk is sound and contains nothing but milk and sugar. Mr. Slade said that it was not desirable that the milk should be kept longer than possible If witness would obtain his medical and expert evidence by two o'clock that day, he would consent to adjourn the case till then. Mr. Beetham assented, and the hearing was accordingly adjourned.

When the matter again came before the Court, Dr. Dixon, medical officer of health for Bermondsey, stated that, having examined the milk, he was opinion that it was unfit for the food of man. He was told that a heap, consisting of twenty-five cases, had been sold as pigs' food. The Clerk (to Mr Thomas): Do you believe these were intended for pigs' food? Mr. Thomas: I have no doubt that is so Mr. Beetham declared that when the milk was mixed with water and boiled, it came back to its original strength. Unfortunately, the adjournment had been so short that he had been unable to obtain the services of an expert for the purposes of analysis Mr. Thomas: We do not dispute that the milk was originally made of the best components. What we say is that it was not fit for food when we seized it. The Clerk (to Mr. Beetham): Do you say that all the milk, except that in the twenty-five cases set aside for pigs, is fit for human food? Mr. Beetham: It was not intended for human food, but for manufacturing purposes. Mr. Slade: What did you pay for the milk? Mr. Beetham: All prices—from 6d. to 2s. 4d per case. May I ask that the milk should be taken back until it is analysed? None shall be removed without an order from Mr. Thomas. Mr. Thomas objected to this course. Mr. Slade said he could not deal with the twenty-five cases intended for pigs' food, but he made an order for the remainder to be destroyed

British Machinery for America.—The Westinghouse Electric Company, which are about to erect extensive works at Manchester, have just secured a unique order from the Manhattan Railway Company. The apparatus covered by the contract consists of eight three-phase alternating-current generators, each of 6,650 horse-power capacity, with such stepdown and converting devices for the railway company's substations as will be necessary to transform the alternating current in the power-house into direct current of 500 volts These generators will be the largest ever designed or constructed. Their external dimensions will be something over 40 ft., while the rotary element has a diameter of 32 ft. Each machine and engine complete will weigh nearly a thousand tons. The largest electric generators ever previously constructed were of 5,000 horse power capacity, and these were by the Westinghouse Company. This should silence the hysterical traducers of Britain's engineering ability. The Midland locomotives made in the States do not count for much now.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Purification of Acetylene Gas. J. W. Bailey and J. Clapham. 23,073. November 20.

Production of Indigo in a Readily Soluble Form. J. Y. Johnson. 23,122. November 20.

Production of Indigo-lenco Compounds or other Indigo Products. J. Y. Johnson. 23,123. November 20.

Apparatus for Refining Sugar. J. R. Langlois. 23,134. November 20.

Manufacture of Coke. H. H. Lake. 23,203. November 21.

Refuse Destructors. A. J. Liversedge. 23,209. November 21.

Purifying Graphite. E. Teisler. 23,233. November 21.

Secondary Voltaic Batteries. H. Leitner. 23,231. November 21.

Manufacture of Zinc Paint. S. Cowper-Coles. 23,242. November 22.

Distillation of Organic Substances. J. D. Campbell and W. H. Yates. 23,252. November 22.

Method of Treating Soap Suds. S. Turner and J. Turner. 23,259. Nov. 22.

Production of Alkali Cellulose Allied Compounds. C. F. Cross. 23,303. November 22.

Treatment of Sulphide Ores. J. Swinburne and E. A. Ashcroft. 23,322. November 22.

Treatment of Sulphide Ores. J Swinburne and E. A. Ashcroft. 23,323. November 22.

Manufacturing Potash, Soda, Chlorine, and their Derivatives by the Decomposition of the Alkaline Chlorides and Apparatus therefor. R. Haddan. 23,340. November 22.

Production of Indigo-white Compounds. J. Y. Johnson. 23,396. Nov. 23.

Igniting Composition for Matches J. Landin and A. Jernander. 23,405. November 23

Distributors, etc., for Sewage and other Polluted Waters. E. R. Candy. 23,416. November 23.

Explosives. J. Ross and W. D. Cairney. 23,442. November 24.

Prevention of Incrustation in Steam Boilers. J. Smit. 23,446. Nov. 24.

Improvements in and Relating to Artificial Stone. J. M. Thompson. 23,535. November 25.

Saponaceous Products from Petroleum or other Mineral Oils. S. Dyson and J. Gaskell 23,539. November 25.

Improvements Relating to the Preservation of Wood J. G. Pauchon. 23,583 November 25.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in the Construction of Centrifugal Pumps for Lifting Acids or Acid Liquors. E. and W. Marsh, 46, Lily Hill-street, and F. Marsh, 5, Stanley-street, all of Whitefield, Lancs. Eng. Pat. 833. January 13, 1899.

The body of the pump is made of blocks of stone, bolted together where necessary. In a recess in the blocks, a disc of metal, coated with vulcanite or other acid-resisting material, is rotated on a shaft, blades being fixed to the disc to propel the acid. There are three figures showing the general construction.

A Process of and Apparatus for Obtaining Ammonia and its Salts from the Spent Liquor of Molasses in Sugar Factories and Vinasse. H. Fischer, Pecek, Bohemia. Eng Pat. 15 815. August 2, 1899.

The waste liquor, freed from lime, baryta, and strontia, and partially concentrated, is run into evaporators, fitted with agitators, and heated to 200° C., when it is rendered nearly anhydrous It is then charged into horizontal retorts, heated by separate gas fires and provided with spiral conveyors, which are rotated in alternate directions. In these retorts the mass is distilled at about 500° C. The gases given off are treated in much the same way as coke oven gases for the separation of tar and ammonia products. There are three figures. The success of the process depends on the regulation of the temperature which must not exceed 600° C.

Improvements Relating to the Manufacture of Cream of Tartar. A. Martignier, Quai de la Bordigue, Cette, France. Eng. Pat. 27,328 December 27, 1898.

Ordinary commercial cream of tartar contains 85 to 90% of bitartrate of potash, the rest being tartrate of lime. This is removed by treating with hydrochloric or sulphuric acid, the tartrate of lime being decomposed with the formation of tartaric acid and chloride or sulphate of lime. The bone black used for decolourising must be washed with the acid employed. The tartaric acid so formed is converted into cream of tartar by any known method.

A New Fine Alloy for Hardening Aluminium, Increasing its Strength and Elasticity. G. E. Bourgoin, 3, Rue Froment, Paris. Eng. Pat. 23,386. November 7, 1898.

An amalgam of tin and aluminium is added to an alloy of copper, nickel, fine steel, and a little aluminium. The metals are fused in a non-siliceous crucible and protected with a layer of powdered slate and vegetable charcoal. The alloy which results is "fined" by the addition of a small quantity of potassium ferro-cyanide, and cast into pigs. From 2 to 8 per cent. of this allloy is added to the aluminium to be hardened, according to requirements.

An Improved Method of Purifying Water. Dr. J. O. Kröhnke, 54, Kaiser Wilhelmstrasse, Hamburg. Eng. Pat. 19,379. September 26, 1899.

The difficulties, such as imperfect slaking, attending the use of lime, together with iron and alumina salts, in the purification of water are to be obviated by the employment of levigated chalk. This is easily prepared, forms pronounced flakes with the precipitating salts, and is less soluble in water than lime. It is also claimed as an advantage that in the purification of potable waters the carbon dioxide which is liberated from the chalk increases the palatability.

THE MERSEY AND IRWELL JOINT COMMITTEE.

AN ordinary meeting of this Committee was held, on Monday, in Manchester, under the presidency of Mr. Alderman C. Brierley, of Bury. The business was in the main of a formal character. A report was presented by Mr. Frank Scudder (for Sir Henry Roscoe) showing that as the result of analyses of samples of effluents from the treatment of sewage he was able to pronounce the effluents relating to Little Lever, Cheadle and Gatley, Tottington, Whitworth, Littleborough, Eccles, Ashton-on-Mersey, Wardle Higher Works, and Marple as "good." The samples taken from Pendlebury, Offerton, Droylsden, Irlam, Barton, and Kearsley he described as "fair;" those from Worsley, Rochdale, Wardle Lower Works, and Macclesfield as "unsatisfactory;" whilst "bad" was the word applied to the effluents from Farnworth, Norden, Northenden, Manchester, and Salford. The report of the Consulting Sub-committee set forth the arrangements which, subject to the Committee's approval (which was given), had been made with several local authorities for the extension of time in which to make, improve, or complete purification works. The Sub-committee stated that they have again had under consideration the letter received from the Ship Canal Company on the 16th September with reference to the large deposits of sludge in the Company's docks at Salford. Sir Henry Roscoe and Mr. Scudder had completed their chemical investigation, but there were other data, involving the question of surface drainage, which it would be necessary to obtain before the matter could be properly dealt with by the Sub-committee. They had therefore instructed the Joint Committee's officials to make the necessary inquiries and to report thereon. Mr. F. Brocklehurst remarked that, in addition to the inquiries in question, he would like to have a legal opinion as to what might be termed sewage—whether the surface drainage came within that category. The Clerk (Mr. Clare) said he would consider the matter, and bring it before the Committee. With reference to the complaints lately made as to the offensive condition of the river Mersey and the Ship Canal, it was reported that the clerk had written to the Corporations of Manchester and Salford "desiring them to give the Joint Committee their utmost assistance in effecting a speedy improvement in the condition of those streams." Salford's reply was to the effect that it regretted the cause for such complaints, and desired to assure the Joint Committee that it was doing all it possibly could to push forward the completion of the Salford sewage works, and in the meantime was endeavouring to treat the sewage of the borough as well as it possibly could under the circumstances.

MANCHESTER SEWAGE.

Sir Bosdin Leech, Chairman of the Manchester Rivers Committee, told the Joint Committee that a scheme had been formulated for the purification of the effluent from the sewage works at Davyhulme, and Manchester was seeking the approval of the Local Government Board. No effort, the letter added, would be wanting on the part of the Manchester Corporation to make satisfactory the effluent with the least possible delay. The report of the Chemical Sub-committee was also presented. It contained certain recommendations relative to five firms, and was approved. A letter was received from the Leigh and Atherton Joint Sewage Board stating that they recognised that their sewage effluent was at present unsatisfactory, and were proceeding with considerable further outlay with a view to the effluent's improvement.

Reports of Companies.

THE LONDON NITRATE COMPANY, LTD.

A PROSPEROUS YEAR.

The twelfth annual general meeting of the London Nitrate Company, Limited, was held yesterday at the Common Hall, Hackin's-hey, Liverpool. Mr. Frank Tobin, the chairman of directors, presided. The directors' report stated that the year ending June last had been a very favourable one, the profit on trading, after deducting depreciations and loss in exchange, being £19 884. Out of this sum directors had appropriated £5,000. to sinking fund, and after paying office expenses, debenture interest, and other outlay, there remained £12.570. Including the net balance brought forward from last year, there was £14,450. available for distribution, and out of this sum the directors recommended the payment of 12s. per share on the preference capital (being 4s. balance of arrears and 8s. for the past year), and 2s. 6d. per share on the ordinary capital. The report also announced the redemption, during the year, of the whole of the £30,000. debentures of the company.

The Chairman alluded to the loss the company had sustained by the death of Mr. F. W. Reynolds, who was a member of the board. Dealing with the accounts, which they all no doubt considered satisfactory, there were, he said, two prominent features which marked the past year. One of them was that they had entirely discharged their debenture debt of £30,000., and the other was that they were in a position, for the first time for a good many years, to give a small dividend to the ordinary shareholders. He concluded by moving the adoption of the report and the payment of the dividends recommended therein.

Mr. Geo. M Inglis seconded, and the motion was adopted.

The Chairman, replying to a shareholder, said that while they had always been willing to join a fair combination, he did not see how it would benefit their company. He did not think there was any chance of a combination being formed in the near future.

On the motion of Mr. Inglis, seconded by the Chairman, Mr. Wm. N. M. Newall, of Messrs. Hainsworth, Watson, and Co., was elected a director of the company in room of the late Mr. Reynolds. Messrs Harmood Banner and Son were re-elected auditors of the company.

A vote of thanks was afterwards passed to the chairman and directors, and the proceedings terminated.

SULPHIDE CORPORATION, LTD.

The third annual general meeting was held on Tuesday at Winchester-house, the Earl of Kintore presiding. In moving the adoption of the report, the chairman said that the board had the satisfaction of recommending dividends of 10 per cent on both classes of shares. It was a matter of great gratification to his colleagues and himself, as he trusted it also was to the shareholders, that the hopeful view of the prospects of the corporation which he expressed last year had been so quickly and amply verified. Their success was the more gratifying as it was the result, not of any brilliant piece of good fortune, which might be considered of an exceptional character, and therefore not likely to recur, but of steady and continuous industry, the fruit of which was seen in increased output, reduced cost of production, and the entire suppression of all unnecessary expenditure. A special feature of their position was that the improvement which had been so marked during the past year was still progressing, and that the months since their accounts were closed on June 30th last had shown profits much in excess of those of the corresponding periods of last year. The profits from lead concentrates showed for the 21 weeks of the current financial year an increase of £32,443 over those of the corresponding period of last year. This excess of profits was on an average weekly output for the current year of 823 tons of concentrates. For the week ended the 25th ult., the board had received a cable stating that the output of lead concentrates had amounted to 1,001 tons. This tonnage was a record and indicated that the mine was now again in full swing of production. At present lead prices, and with present low costs, the profit made by the company on each ton of concentrates exceeded £5. Developments of the 600ft. level had disclosed an ore body exceeding their anticipations, and the width of 270 ft. which the lode in their property attained at this level was a matter on which they might very heartily congratulate themselves. Mr. Courtney, in 1897, expressed the opinion that their valuable ore reserves would exceed 5,000,000 tons, and still adhered to this estimate. With regard to the smelting establishment at Cockle Greek, work had continued smoothly during the year, and 31,590 tons of concentrates had been treated, from which, inclusive of the proceeds of small quantities of residues and purchased ore, there had been produced 18,783 tons of silver lead bullion. The mining, milling, and smelting account showed a profit of £141,589. which was carried to the credit of the profit and loss account, and, when other small receipts were added, there was a total of £142,183. to deal with. This was reduced by London and Melbourne general expenses, directors' fees, fees paid to professional adviser, debenture interest, discounts, and exchange to £126.218. This the board dealt with by providing £11,064. for depreciation in their stores and working plant, by paying £96,250 in dividend, and by carrying forward a credit balance of £18,904. They anticipated being able to pay an interim dividend about June next, to be followed by a further distribution about that time next year. The Hon Henry Gibbs seconded the motion which was unanimously carried. A resolution was afterwards agreed to, on the motion of Mr. Compton, to the effect that the directors should take the percentage of the profits to which they were entitled under the articles of association. Mr. F. A. Keating, director, who had recentlyreturned from Australia, where he visited the company's properties, spoke very hopefully of their prospects.

VOLENITE, LTD.

The first annual ordinary general meeting of Volenite, Limited, was held on Tuesday, at Dublin. The Right Hon. Lord Lurgan (chairman of the company) presided.

In his address to the shareholders, the chairman said soon after the starting of the works, your directors endeavoured to carry out the commercial side of the business, for a short time, themselves, but we were forced to the conviction, after a short time, that it was essential, in the interests of the company, that we should employ somebody connected with the trade, and in the trade, and intimately acquainted with the details of the trade, to push business. I think you will agree with me that there was no better person than the inventor of volenite to do so. And I am glad to say that Mr. Lamplough, the inventor of Volenite, consented to be appointed manager of his own business, and has taken over the entire management of volenite. He was appointed manager so that he could devote his whole time and energy to our business. To show you the result of this policy I may say that within a few weeks of his assuming the command he has secured for us orders representing over a quarter of a million sterling of our ordinary raw manufactured materials—(applause)—and not only that, but we have more than double that amount, but which, owing to our inability to turn it out with our present machinery, we have been obliged for the time being to refuse. There has been, I am afraid, rather an element of discord introduced by a policy we were obliged to adopt, of refusing admittance to the works. In the first instance, we tried to meet the wishes of the shareholders, and in fact, anyone who came to ask us for an order for admission; we were only delighted to comply, but owing to shareholders having—far be it from me to suggest anything but unwittingly—taken away pieces of volenite which were lying about, and saying they were electrical volenite, and having them tested for a purpose for which they were not intended, all sorts of rumours most detrimental to us and to your interests, and those of everyone interested, got into circulation, and volenite for the time being got a bad name. Whose fault wa that? Were we wrong in saying, in consequence, that we would not admit people to the works? I say not; and I say that it was in your interest that we should not do so. Injurious rumours as to cost have also been very prevalent. I only came to Dublin yesterday, and a man met me in one of the streets just after I had arrived, and he said, "I understand you are selling volenite mats." I said that it was quite possible, as we were applying it to over 4,000 different articles. He said, "Is it true that you employ from 40 to 60 per cent. of rubber in those mats?" I said, "Considering that we sell them at 1s. per pound net, and india-rubber costs 5s. to 7s. per pound net, how would it pay us to employ from 40 to 60 per cent. of rubber in it?"

After the moving and seconding of the report the chairman said I should have said that, in connection with the adoption of the report and statement of accounts, Mr. Lamplough is here present, and photographs will be handed round and a rough proof of the catalogue. The motion was carried unanimously and without division.

Mr. Lamplough in his remarks said:—I have here in my hand an advance proof of the catalogue I am preparing. It contains over 4,000 items, and each item requires a special preparation to comply with the requirements of the particular trade. Besides the 4,000 items, we are asked for things of every description, from trades I knew nothing about. Of course, I don't know every trade under the sun, but I make them up to order. If there is anyone here who would like to have something specially made I would be always eager to oblige him, provided we are not overburdened with orders, as we are at present.

A Shareholder: What amount of rubber is used in the making of volenite?

The Chairman: We have received certain orders for volenite, in which a certain amount of rubber is specified as being required. I think you will agree with me that we could hardly refuse those orders; but the original volenite has not a particle of rubber in it.

Mr. Lamplough: There is one thing I should like to urge before the meeting breaks up; it is, if any shareholder should find a piece of stuff given him as volenite, before going to any other agents or stock-brokers, who were inclined to frighten people into throwing their shares

into the market, send it to me, and I will inform you whether it is volenite or not, and I will pay the carriage on it. A piece of steam jointing was sent me the other day that had been blown out of a flange, and the shares were knocked from £5 to £3 in consequence. I found it to be perfectly good, notwithstanding. If a bung is blown out of a cask, it never reflects on the quality of the beer, but the capacity of the man who put it into the cask. And in this particular instance that is what happened.

LAGUNAS SYNDICATE, LTD.

The directors' report for the twelve months ended June 30th last states that the profit and loss account shows a gross profit of £66,490. Debenture interest, premium on drawn debenture bonds, general charges, difference in exchange, and the sum of £1,000. written off preliminary and debenture issue expenses have absorbed £18,977. of the gross profits, which leaves £47,513. to be carried to the balance-sheet. After deducting £15,000. for debenture bonds redeemed, there remains a net balance of £38,960. available for distribution, and the directors recommend that £33,000. be applied to the payment of a dividend of 3s. per share, free of income-tax, and that the balance of £5,960. be carried forward. In view of the low prices ruling for nitrate of soda during the period under review, the directors regard this result as highly satisfactory. The shareholders were informed in last year's report that the plaintiff company were appealing to the Court of Appeal against Mr. Justice Romer's judgment in the action brought by the Lagunas Nitrate Company, Limited, against the syndicate and others. The appeal was unsuccessful and was dismissed with costs; but the plaintiff company are still dissatisfied, and are carrying a further appeal to the House of Lords. The plaintiff company has taken no steps to prosecute the inquiry as to the amount of damages payable by the syndicate in respect of the delay from June to December, 1894, in perfecting the water supply, and the delay from June to September, 1894, in setting the second half of the Maquina to work, and accordingly no provision is made in the accounts in respect of this liability.

BRITISH NON-FLAMMABLE WOOD CO., LTD.

The directors' report for the year ended September 30th last states that during the past year the capital has been increased by the creation of 40,000 new shares of £1. each, of which 39,723 shares have been applied for and issued to shareholders at £1. per share. The London Non-Flammable Wood Company, Limited, has been promoted, and having acquired from your company the works at Fulham and a licence to use your company's process, is now in active operation with Government and other work. Twenty-three thousand pounds appearing in the last balance-sheet as a liability on loan account has been paid off. The net profits for the year, taking the shares held in the London Non-Flammable Wood Company, Limited, at par, amount to £47,438., after writing off £4,407., the debit balance shown on last year's account; £3,749. experimental and demonstration expenses since the incorporation of the company; £1,623. patent charges and fees and £600. stamp duty on purchase of patents. Seeing that the assets are so largely represented by shares of the London Non-Flammable Wood Company, Limited, the directors recommend the shareholders not to declare a dividend, but to leave the cash balance available for the further development of the business. The experimental work at the laboratory has resulted in a number of British, colonial, and foreign patents being obtained, which, in the opinion of the directors, justifies the valuation of the patent rights at the same sum as in last year's accounts. The purchase from the Electric Fireproofing Company, of New York, of certain continental patents, in respect of which a deposit of £5,000. has been paid, still awaits completion, but the directors trust that the difficulty which has hitherto prevented the completion will shortly be removed. Negotiations are now in progress for the formation of companies to acquire licences for other parts of the United Kingdom, and for the sale of the company's patents and rights for certain British colonies and foreign countries.

CASSEL GOLD EXTRACTING CO., LTD.

The directors report that the company's operations for the year ended September 30th last show satisfactory results. After writing off £5,000. for depreciation of patent rights, buildings, machinery, plant, and stocks on hand, the amount at credit of profit and loss account is £20,240. Deducting the interim dividend of 7½ per cent. paid in May last, £4,406., there remains £15,834, and the directors recommend the transfer to reserve fund of £5,000., and payment of a further dividend of 15 per cent. (free of income-tax), making 22½ per cent. for the year, carrying forward £2,022. The dividend will be paid on December 29th to all shareholders on the books at December 19th. As the bulk of the shares of the African Gold Recovery Company, the Australian Gold Recovery Company, the Gold and Silver Extraction Company of America, and the Mexican Gold and Silver Recovery Company, held by the Cassel Company, have now been distributed among the shareholders of the Cassel Company, and as such of the shareholders as remain interested in those companies will be receiving direct information, it is not now necessary to refer specially to them. The royalty contract referred to in last report has come into active operation during the year, and has yielded regular returns, and the cyanide operations have been eminently successful. Other negotiations are proceeding, and there is a reasonable prospect of further business being arranged ere long. The plant at Taltal has been in regular operation throughout the year with satisfactory results, and royalty returns have been coming in under our contract. Your directors regret to say that the Alhué Company's affairs are not in as satisfactory a position as they would like, and they have been obliged, along with other shareholders, to criticise the management severely, and concerted action is being taken with a view to putting the affairs of the company on a sounder footing. The plant referred to in last report has been running, though not regularly, and royalties have been paid; but disappointments in the quality of the ore have been met with by the proprietors, hence the irregular work. The Indian companies using our process have continued their operations with the usual success, and there is nothing special to remark in this connection. The cyanide plant at Punjom has again been working only at intervals, and the quality of the material has been very low, which sufficiently accounts for the indifferent progress. The alteration and extension of the company's works, referred to in last report, has made satisfactory progress during the year, but a good deal still remains to be done. Our cyanide business has shown a gratifying expansion, notwithstanding that competition has continued keen. A considerable amount of work has been done in special investigation, examination of samples, and cyanide plant orders.

Correspondence.

*** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

FOOD FOR THE TROOPS.

(To the Editor of the Chemical Trade Journal.)

SIR,—More than three years ago (as the enclosed sheet shows) I tried to point out the weak points of the present system of meat preserving, and the advantages of the dry system *especially for military purposes.* Had the suggestions been adopted in time the recent serious mishaps with the meat supply to our troops never need have happened. For a comparison of the two systems I refer you to the paper itself. May I ask your assistance in calling attention to a matter which has now become one of vital importance?

I am, etc.,

Farnworth, Widnes, Lancs. JAMES HARGREAVES.

[Mr. Hargreaves sends us a reprint of an article which appeared in the *Liverpool Courier*, of June 8th, 1896, which will repay perusal by those interested.—ED. *C.T.J.*]

PLURALISTS IN CHEMICAL APPOINTMENTS.

(To the Editor of the Chemical Trade Journal).

SIR,—I remember reading a story of a Bishop of the Church who met a poor curate of his diocese and asked him to order dinner at the neighbouring village inn without extending to the curate an invitation to dine. On arriving at the inn the Bishop found dinner laid for several persons, and on making inquiries found that the curate had ordered dinner for the Bishop of ——, the Dean of ——, the Prebendary of ——, the Chaplain of ——, and the Archdeacon of ——, all of which offices were centered in the person of the Bishop. Now, while the holding of a plurality of offices in the Church and other public bodies has been practically abolished, one seems to meet with it largely in modern chemical appointments. How often one sees some such long list of titles:—Gas examiner to the —— Corporation, chemist to the —— District Council, public analyst for the county (counties sometimes) of ——, for the county borough (or the boroughs) of ——, for the parish of ——, and so on. Now, I would ask how can one person efficiently perform the duties of all these offices? The law under which these appointments of public analysts are made contemplates the analyst doing the work himself, and if a prosecution is instigated under his certificate, and it is brought out in evidence that he has not made the analysis himself, then, as recent cases have shown, the prosecution may be quashed. Now, it is impossible for a chemist holding many appointments as public analyst to do all the work himself, and hence much, if not most, of it must be done by deputies, which the law, as stated above, does not contemplate. The remedy is simple. There ought not to be on the part of our analytical chemists such an inordinate grasping after a multiplicity of public appointments. Let them be content with one or two, and give others a chance of picking up a few crumbs. Also, the committees who have these appointments in hand should not be so ready to confer a post on one who already holds a long list of appointments.

I am, etc,

CHEMIST.

Selected Correspondence.

THE NATIONAL PHYSICAL LABORATORY.

(*To the Editor of the Times.*)

Sir,—In proposing the toast of "The Legislature" at the recent anniversary dinner of the Royal Society, my friend, Professor Oliver Lodge, did well to commend the action of the Government in founding the National Physical Laboratory, and in expressing gratitude to Professor Rücker for his great services in helping to work out its realisation. But he might truly have taken for himself the credit of initiation of the undertaking, and of perseverance for many years in efforts to obtain the necessary support for realising it. And I think it ought to be known by the general public that its realisation was the successful work of the last years of the life of the late Sir Douglas Galton. He brought it within the sphere of practical politics by his presidential address to the British Association at Ipswich in 1895, and visited Berlin to see the Reichsanstalt there, and judge how much of that institution should be adopted as an example for a corresponding institution in this country; and gave his conclusions, and advice founded on them, to a Royal Commission, which had been appointed (under the presidency of Lord Rayleigh and the vice-presidency of Professor Rücker) in consequence of his Ipswich address to report to the Government on the subject.

I remain, Sir, yours faithfully,

Kelvin.

Netherhall, Largs, Ayrshire, Dec. 2.

TECHNICAL AND SECONDARY EDUCATION.

(*To the Editor of the Times*).

Sir,—I beg that you will allow me to reply to Mr. J. H. Reynolds's letter on "The True Place and Functions of Technical Education," for it would be unfortunate if it were generally supposed that his views as a whole are shared by any considerable number of those holding similar posts in other administrative areas. With the first of his two main contentions—namely, that there should be developed as rapidly as possible a system of thorough secondary education, free from too early specialisation, most people will agree who have really looked into the matter, though it will always be necessary to take into account the fact that specialisation of some kind must begin at different ages with different classes of boys. I, for one, however, entirely join issue with his assumption that to secure this end it is essential that in the organisation of the new Board of Education a sharp line be drawn between secondary and technical education and that the two branches should be in the charge of quite different sections of the staff. Mr. Reynolds speaks of the "dictum" of the Royal Commission on Secondary Education on this question, but it may be pointed out that the opinion expressed by that Commission as to the impracticability of separating technical from secondary education was based on a considerable mass of expert evidence.

Much, doubtless, depends on the exact meaning attached to the word "technical," and it seems clear from Mr. Reynolds's letter that to him it means, even in its earlier stages, something much more highly specialised than it means to most of us. Unless I misunderstand his attitude, he uses the word in the sense in which many people use the word "technological" It is useless to argue unless we agree as to the meanings of terms, and I submit that for practical purposes we must accept the only definition of technical instruction that has any legal or administrative significance. In the Technical Instruction Act of 1889 it is defined, in the first place, as "instruction in the principles of science and art applicable to industries," and it is especially important to note that the word used is "applicable" and not "applied" or "in their application to." The definition goes on to include the application of special branches of science or art to specific industries. In other words, according to the Act, technical education includes all the preparatory and non-specialised instruction in science and art, as well as the subsequent specialisation in particular applications of them. It is held to comprise all the science subjects in the "Science and Art Directory" (including all stages of mathematics), and most of them are treated in a perfectly general way, without reference to any special applications. As a matter of fact, mathematics, science, drawing, modern foreign languages, and all the other subjects commonly found in a secondary school curriculum, with the exception of English, Latin, Greek, music, and physical exercises, are technical instruction within the meaning of the Technical Instruction Acts. Had it been otherwise, it would have been impossible for the Education Committee of the Somerset County Council to spend nearly £12,000. in providing secondary schools with new or improved buildings, about £2,000. per annum in maintenance grants to such schools, and another £2,000. per annum in scholarships to, in, and from such schools, whilst similar liberality on the part of many other counties would likewise have been impossible. Nor should it be forgotten that if it had not been for the grants thus made by county councils (and those made by the Department of Science and Art) many of the smaller grammar schools, situated in districts where they are badly needed, would by this time have ceased to exist. Moreover, it cannot be said that the conditions attached to these grants have gone further in the direction of specialisation than to require the efficient teaching of mathematics, drawing, modern foreign languages, and a very moderate amount of general experimental science.

I have no doubt that Mr. Reynolds would regard a considerable proportion of these subjects as essential in the system of secondary education for which he pleads so ably and with such good reason, but, as I have already pointed out, they are all "technical" education as the term is commonly understood. I have equally little doubt that he would find it very difficult to say exactly where, from his point of view, such instruction ceases to be "secondary" and becomes "technical."

From the educational point of view, I believe any such division to be practically impossible, and would venture to suggest that the remedy for the admitted evils to which Mr. Reynolds refers lies not so much in the subjects taught as in the manner of teaching.

The proposed separation is largely an administrative question, and surely it is late in the day to set up an arbitrary division which the experience of the last nine years has shown to be quite unnecessary from the administrative point, and undesirable in the financial interests of the schools themselves.

I may add that this question has more than once been fully discussed by the Association of Directors and Organising Secretaries for Technical and Secondary Education, and the members have always been practically unanimous in their disapproval of the separation that Mr. Reynolds now advocates. This, however, is by no means synonymous with a desire to see any early specialisation in secondary schools.

I am, Sir, yours truly,

C. H. Bothamley,
Director of Technical Instruction in the County of Somerset.

SOCIETY OF CHEMICAL INDUSTRY.

MANCHESTER SECTION.

The second meeting of the session was held on Friday, December 1st, Dr. Grossmann in the chair. Mr. T. Powell brought before the notice of the meeting the magistrates' decision in a recent adulteration case, that a certificate signed by a public analyst when the work was actually performed by an assistant could not be legally admitted as evidence, and proposed a resolution to the effect that the law should be altered so as to allow of such evidence being admitted. Mr. Scudder, Mr. Davis, and several other members argued that the law was perfectly right, and needed no amendment. It was a very reprehensible practice that a man who was appointed a public analyst should relegate this work to others whom the law could not touch in the case of mistakes. If a sample was bad enough to need the prosecution of a seller, surely it was not too much to ask that the man specially appointed and paid should do the work as specified by law.

A paper was then read by Dr. A. K. Miller, prepared by himself, and Mr. Percy Potts upon the "Analyses of some Sugar Syrups." The paper was a very severe criticism of a paper that appeared in the *Analyst* recently.

The reader proved most conclusively to his audience that the method of examining sugar syrups, which had been stated as having the sanction of Dr. Thos. Stevenson's use, was utterly unreliable and misleading. This was proved by the author's own figures and formulæ.

Mr. T. Aspinall then read an amusing paper upon the "Oxidation of Organic Matter by Liquid Chlorine." He described, amid much laughter, the process of procuring liquid chlorine from abroad and its passage through the Customs at Liverpool, and subsequently described its application in the treatment of the sewage of a certain district, and gave many figures illustrating the purity of the effluent attained. An interesting discussion followed, from which it was made clear that the purification of sewage by chlorine was of too costly a nature to come in for general adoption. Votes of thanks to the readers of the papers concluded the evening's programme.

NOTTINGHAM SECTION.

The second sessional meeting of this section was held on Wednesday, the 29th ult., at the Municipal Technical College, Derby, an inspection of the well-appointed laboratories and class-rooms first being made by the members, under the guidance of Dr. Leicester. Amongst those present from Nottingham were Professor Kipping, F.R.S. (chairman), Mr. Craven, Mr. Golding, Dr. Sudborough, and Mr. J. T. Wood (hon. secretary). The Derby members present were Messrs. Archbutt, Adams, Carulla, Scott-Herriott, and J. White.

The Chairman, in opening the proceedings, said that apologies for non-attendance had been received from Mr. J. O'Sullivan (Burton),

and also from Drs. Laurie and R. W. Gentles. The thanks of the society, he continued, were due to Mr. Shurlock, the principal of the college, for having so kindly invited them to hold their meeting in that building.

Mr. Archbutt seconded the vote of thanks, which was heartily carried

A paper was then read by Mr. R. M. Caven, B.Sc., on "The Equivalent Displacement of Metals from Salt Solutions." The author commenced with an historical sketch of the subject, giving the views of Bergmann, who, writing more than 100 years ago, and explaining his observations by means of the phlogistic theory, yet stated what is quite conformable with later experiences. The experiments of Odling in 1857, the writings of Commaille S. Kern, L. Meyer, D. Vitali, J. B. Senderens, and of Seubert and Schmidt, complete the list of those who have contributed to this field of knowledge. The subject seemed worthy of study to the author, and he investigated the question, independently obtaining as he proceeded results that confirmed or disproved the theories which have gained currency. He confined himself to the metals, magnesium, zinc and iron, displacing by their means the copper from solutions of Cu_2SO_4 of varying strengths. Cold and hot solutions were tried. In all cases Mr. Caven found that the copper is not precipitated completely in the metallic state as is frequently supposed, but that a portion of the copper comes down as Cu_2O. The more dilute the solution the greater the amount that falls in the oxidised state. The quantity of the oxide is also larger in the precipitate from a hot than from a cold solution. In the case of hot dilute solutions the amount of copper thus deposited in the form of oxide may exceed 25% of the whole. Although hydrogen is usually evolved in these experiments, the author found, contrary to the experience of Senderens, that with iron in cold solutions of Cu_2SO_4 none was evolved. Mr. Caven considers that the phenomenon he has investigated is due to a long series of reactions, as many as eight, in some of which the hydrolysis of the sulphate is involved, sulphuric acid being produced.

Mr. Golding asked whether the metals used were absolutely pure.

Mr. Wood said he was much interested in the paper. It might seem a purely scientific one, but he thought it had some practical use. In making chrome tanned leather if the chrome alum is dissolved in hot water the leather cannot be tanned. Dissolved in the cold the solution is purple, dissolved hot it has a green colour. These chromium salts are very complicated in their solutions, not unlike the Cu_2SO_4 mentioned by Mr. Caven, which yields no basic salt on boiling. Soda solution is added to the chrome solution to bring it into a critical condition. If boiled it does not produce a leather at all.

Dr. Sudborough referred to experiments which, although giving theoretically accurate results, the precipitate had been found to contain an appreciable quantity of the precipitating metal, the apparent accuracy being due to a balance of errors. He was disposed to doubt the complicated character ascribed to the reactions, and thought the starting point was really the hydrolysis of the sulphate,

$$CuSO_4 + H_2O = CuO + H_2SO_4,$$

an action that will be gradually increased as the solution is made more dilute.

Mr. Archbutt thought that thanks were due to Mr. Caven for his interesting paper. He would by his investigations save the labour of many students who might be struggling in their work with erroneous theories.

Mr. White asked whether Mr. Caven would say what method he considered the best for estimating the small quantity of sulphuric acid he had to deal with in the presence of large quantities of sulphates

The Chairman remarked on the great difficulty of the work on which Mr. Caven had been engaged, some of the estimations having to be made with very small quantities. The explanations which Mr. Caven had given he did not think personally were dogmatic. From a certain standpoint the views expounded were extremely unfortunate. In the past we have been quite content to represent by one equation the precipitation of one metal by another. If, however, we give the student an explanation involving eight equations we shall have good cause to regret the loss of simplicity.

Mr. Caven, in the course of his reply, said that the substances he had used were the purest that could be purchased. In reference to chrome alum it is known that when a cold solution is heated the violet colour changes to green, the following equation representing the action that occurs—

$$2Cr_2(SO_4)_3 + H_2O = [Cr_4O(SO_4)_2]SO_4 + H_2SO_4$$

the formation of the acid due to hydrolysis probably having the baneful effect remarked upon by Mr. Wood. Replying to Mr. White, he employed a colour test for the estimation of the free sulphuric acid, using methyl orange as indicator.

Thanks were accorded to Mr. Caven for his most instructive paper.

Mr. Wood exhibited a number of specimens, including artificial bate solutions of great value to tanners, after which the proceedings terminated.

THE SALE OF NICOTINE.

JACOB WRENCH AND SONS, LTD., London Bridge, have been summoned before the Lord Mayor of London by the Pharmaceutical Society for unlawfully selling a certain poison, to wit a vegetable alkaloid called nicotine, in contravention of the Pharmacy Act.

Dr. Stevenson, analyst to the Home Office, said that he had analysed a bottle of the article, which was called the "X L. All Vaporiser." It was a solution of nicotine and camphor in diluted alcohol It contained 37·3 per cent. of the alkaloid nicotine, 34·5 per cent. of camphor, and 15·1 per cent of alcohol, and the balance water. Nicotine was a highly poisonous vegetable alkaloid. The bottle contained enough to kill thousands of people if it were swallowed.

In reply to the Lord Mayor the witness said that three, four, or five drops would be fatal to human life.

Mr. Avory, for the defence, said there was no difference between a man who sold tobacco and a man who sold nicotine mixed with other things as in this case. The label clearly stated that the preparation was only to be used for fumigating purposes, and there was no danger of persons swallowing it.

Evidence was given for the defence.

The Lord Mayor said he was satisfied that this was a poison within the meaning of the schedule.

Mr. Avory: It is an important question. Will you state a case?

The Lord Mayor: Certainly.

Mr. Avory said the defendants were seed merchants, and they were absolutely ignorant that there was any breach of the law in selling the preparation.

The Lord Mayor imposed a fine of £5. and £10. 10s. costs on the first summons, and a nominal fine of 10s on the other two summonses and the costs of the summonses. He hoped that in the meantime the sale of the compound would be stopped.

Mr. Avory: As far as my clients are concerned they have already discontinued it.

The Lord Mayor said he did not wish to prejudice the case, but he would suggest that the bottles sent out should be called in.

Trade Notes.

MESSRS. BOWMAN, THOMPSON AND CO., LTD.—In reference to the paragraph which appeared in our last week's issue referring to the absorption of the works of Messrs. Bowman, Thompson and Co., Ltd., by Messrs. Brunner, Mond and Co., Ltd., we have been asked by the secretary to the former company to contradict such paragraph, "as it untrue and most misleading." We have pleasure in acceding to the secretary's request; but, at the same time, would like to express the opinion that it would have been infinitely more satisfactory if he had pointed out what was untrue and what was misleading in the said paragraph.

PATENT FUEL TENDERS.—Tenders are being invited by the Mairie de Chatellerault, France, until December 12th for the supply of 8,000 tons of patent fuel for the Chatellerault Small Arms Works.

BRITISH FIRE-PREVENTION COMMITTEE. (PARIS EXHIBITION.)—The Executive of the British Fire-Prevention Committee have decided to withdraw from participating in the Paris Exhibition. The Executive regret that this decision should have been necessary, as the collective exhibit of fire-resisting materials, systems, etc, would have been the first of its kind, and considerable trouble had already been taken in preparations.

Obituary—Sir Henry Tate died on Tuesday, this week. The late baronet was the founder of the firm of Messrs Henry Tate and Sons, the well-known sugar refiners, of Liverpool and London. He was born at Chorley, Lancashire, in 1819. He married the daughter of the late Charles Hislop. The deceased took great interest in art, and will always be remembered by his gift to the nation of the Tate Gallery.

ACCIDENT AT A CHEMICAL WORKS—At eleven o'clock on Wednesday morning a serious accident occurred at the chemical works of Bowman, Thompson, and Company, Limited, Lostock, Northwich. James Wilkinson, 15, plumber's assistant, was working on vats elevated far above the ground, when he slipped and fell twenty feet into a railway waggon of lead. He was picked up bleeding and unconscious. He was removed to Northwich Infirmary in a precarious condition.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Tar products generally are firm. Benzols are rather dull, but quotations are practically unchanged. Carbolic acids are very firm at last week's prices, but it is difficult to gauge the market, as makers will not commit themselves to anything but individual quotations. Naphthas unaltered. Pitch quiet at 33s. 6d., f.o b. East Coast.

Sulphate of ammonia is steady, and prices for forward keep very firm at Hull and Leith, the former asking £11. 12s. 6d. to £11. 15s. for Jan./Mar. Beckton quotes £11. 12s. 6d. for Jan./April. Prompt values may be taken as £11. 7s. 6d. for London outside makes; Hull, £11. 6s. 3d. to £11. 7s. 6d.; Leith, £11 7s 6d.

MISCELLANEOUS CHEMICAL MARKET.

Trade still very satisfactory, and prices generally are strong. Bleaching powder moves well at £6., f.o r. works. Caustic soda very scarce for prompt delivery; prices unchanged. Alkali, 58%, is very active, and makers are full of orders; there is but little obtainable for near delivery. Saltcake is rather firmer, and is worth 25s. to 26s. per ton at makers' works. Chlorates of potash and soda are somewhat dull, with only a small amount of business passing; prices still stand at 3½d. and 3¼d. respectively. Sulphur of all grades finds fair inquiry at former rates. Sulphate of copper only in moderate demand, £24. 15s. to £24. 17s. 6d. is to-day's value; and some sellers are willing to book forward at the same price. Acetates in brisk request. Soda scarce at £14 10s. White sugar of lead (foreign) sells freely at £23. to £23. 10s. Lime, brown and grey, without change. Acetic acids stronger. Ammonia salts very firm, but no quotable change. Tannic acids inclined to rise still further. White powdered arsenic continues very steady and prices stand at £19. 5s. to £19. 10s. at Garston, according to brand. Oxalic acid flat at 2½d. per lb. Caustic and carbonate of potash unusually scarce and in excellent demand; 90% caustic is worth to-day £26., and carbonate 90-92%, £19. 10s, nett. Sulphocyanides quiet. Ammonium 6d. Barium 4d. per lb., with 5% off, are general quotations. Prussiate of potash lower, and can be bought at 7½d. per lb. Soda, 5¾d. per lb. Carbolic acids have a good market, but can still be bought at last week's prices.

REPORT ON MANURE MATERIAL.

The market continues quiet, with only a moderate amount of business doing.

The quotation for 77/80% Florida phosphate rock remains 8½d. per unit, c.i.f., to good U.K. ports, and there seems more disposition on the part of raisers to be making sales. Tennessee rock, 78/80%, offers freely at 7d. per unit. Sellers of Algerian phosphates remain firm, the production being sold a long way ahead, but South Carolina may be had at 6½d. per unit, in cargoes, to good U.K. ports.

East Indian bone meal is still a quiet market, and something under £4 15s. per ton would have to be accepted to induce business for Dec.-Jan. shipment.

Nitrate of soda is unchanged on spot, prices being 7s. 10½d. per cwt. for good and 8s. per cwt. for refined quality. Home-prepared dried blood offers at 9s. 9d. per unit, in single bags, delivered f.o.b. Liverpool.

THE METAL MARKETS.

LONDON, WEDNESDAY.—Pig iron steady: Scotch warrants closed at 68s. 7d.; Middlesbrough, 68s. 3d. cash; and hematite, 75s. 9½d. Copper steady: Chili bars, G.O B.'s and G.M.B.'s closed at £73. 10s. to £73 15s. cash; and £72. 10s. to £72. 15s three months. Tin easy: Straits closed at £124. 7s 6d. to £124 17s. 6d. cash; and £124 10s. to £125. three months; Australian, £124 15s.; English ingots, £128. to £129. Lead steady: Spanish, £17 2s. 6d. to £17. 7s. 6d.; English, £17. 10s.; Silesian spelter, ordinary, £20 Nickel, 1s. 2½d. Antimony, £39 15s. Quicksilver: First hands and second hands, £9 12s. 6d. *Copper Shares*: Cape, 6⅜ to 6½; Copiapo, 3¾ to 4⅛; Libiola, 1⅜ to 1⅝; Mason & Barry, 4⅛ to 4⅜; Rio Tinto, 46 1/16 to 46 7/16; Tharsis, 8⅞ to 9⅛.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is in fairly good request and a satisfactory business has been done, including sales of Old Calabar at £23. 5s.0d., and Bonny £23. In olive, there is a small amount of business doing at £36. 10s. to £37. per tun for Spanish. Linseed is quiet at 22s. 9d, to 24s. cwt. for Liverpool makes in export casks. Cottonseed well held for 19s. 9d. to 20s. cwt., Liverpool refined. Castor oil is moving at 2 1/16d. for good seconds, Calcutta, and 2½d. seconds, French. First pressure is offered at 2¾d., but sellers dislike accepting the lower prices offered by buyers. Tallow is advancing in values and there is a brisk business in all descriptions. Resin is in fairly good demand, and sellers of common are now asking 4s. 4½d. per cwt., with other grades unchanged. Spirits of turpentine steady at 38s. per cwt. Petroleum moving quietly at 6⅜d. to 6¾d. for Russian refined, and 7½d. to 8¾d. a gallon for American.

CAKES.—Owing to arrivals and only a quiet demand for American Western linseed on the spot the quotation shows a decline of 2s. 6d., sellers now offering at £7. 2s. 6d. to £7. 5s. Other imported descriptions remain nominally unchanged. Liverpool makes meet only a very moderate inquiry from consumers, but home crushers quote £8. 5s. to £9 per ton, according to brand, and a fairly steady tone prevails thereat. Good to choice brands of American decorticated cottonseed are very well held, and are in good request at £5. 17s. 6d. to £6 5s., but there is only a quiet trade doing in Liverpool makes at £6 10s. to £6 15s. per ton. Consumers of Liverpool undecorticated makes operate sparingly at £4. 16s. 3d. to £5 10s., but recent arrivals of Egyptian are selling from the quay at £4 10s. per ton.

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS.—Cotton oil continues a firm market, being much inquired for, for export. It is said that large quantities are being inquired for from Marseilles; this, in conjunction with the diminished imports of cottonseed, appreciably affects the market conditions. Linseed oil on the other hand is weaker. The exports have been:—Linseed oil, total 26 tons—3 Belgium, 5 Germany, 5 Holland, 2 Italy, 3 Norway, 8 Turkey. The exports of cottonseed oil have been 526 tons—20 Belgium, 5 Denmark, 25 France, 41 Germany, 175 Holland, 228 Italy, 4 Norway, 28 Sweden. The stocks of seed in Hull, month ending November, were:—Linseed, 7,293 qrs. against 1,220 qrs. October 31st; rapeseed, 7,320 qrs. against 7,466 qrs.; cottonseed, 4,292 tons against 2,115 tons. The imports for the month have been:—Linseed, 88,456 qrs. against 67,542 qrs. during October; rapeseed, 16,511 qrs. against 5,220 qrs.; cottonseed, 30,941 tons against 17,840 tons. Linseed oil closes quiet at 21s. spot, naked; 20s. 7½d. January/April; boiled and refined, £1. to £1. 10s. per ton extra. Refined cotton oil closes quiet at 17s 9d. sellers, naked; barrels, £1. 10s, and ordinary casks, £1. per ton extra. Olive oil, £36. per tun upwards according to origin. Olive oil soap from £18. per ton, c.i.f. Hull, to arrive. Castor oil, cold drawn pharmaceutical, 29s. 10d. per cwt. in barrels; 3 1/16d. per lb. in cases; firsts, 27s. per cwt. in barrels; 3 1/16d. per lb. in cases; seconds, 26s. per cwt. in barrels; 3 1/16d. per lb. in cases. Turpentine easier, £37. 10s. Tallow, steady. Cod oils, £16. to £18. per ton. Resins unchanged. Oleines remain dear, from 22s. for brown, to 24s. 6d. for white.

CAKES.—Prices remain firm, but new business is insignificant; new orders difficult to get. Linseed cakes firm in price; 95% pure, £8. 10s. to £8. 12s. 6d.; oilcakes (linseed), £7. 5s. to £7. 12s. 6d.; Russians, £7. 15s. to £8. 5s.; Americans, *nil* Cotton cakes, deliveries on contracts good; best makes, £4. 12s. 6d.; seconds, £4. 7s. 6d. to £4. 10s.; decorticated, £6. 10s. Rape, Black Sea, £4. 10s.

PAINTS.—Business quiet, with no change in prices.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The smart recovery of sulphate of ammonia has been well maintained since last report, and even a little added to the position. To-day prompt buyers have to pay something over £11. 7s. 6d., and anything up to £11. 10s., f.o.b. Leith. In a considerable number of cases forward needs—January to June next year—have been provided for on a range of from £11. 10s. to £11. 15s., so that the market is for the moment strong. The general market for chemicals retains recent added share of good health, and prices, while for the most part unchanged, still edge towards the rise. Oils and solid paraffins are all in satisfactory demand at the late increases quite easily held. Last week's imports of sugar at Greenock were 7,500 bags of beet unrefined.

Chief prices current are:—Alum in lump, £4 5s. to £4. 15s. nett. Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s nett. Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett. Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 10s., all nett. Liverpool; chlorate of potash, 3¼d., less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¼d., and crystal 7d. nett at Glasgow and other big centres, for Scotch

buyers (English sales a shade lower); ditto (lubricating) 865°, £5. 10s. to £6.; 885°, £7. to £7. 10s. and 890/895°, £7. 10s. to £8.; salammoniac, first and second white, £40 and £38. nett, any port; saltcake, 27s.; soda ash, £4. 10s. to £4. 15s., nett Tyne; soda crystals, £2 15s. to £2. 17s. 6d., basis, nett, Tyne; sulphate of ammonia, £11. 7s. 6d. to £11. 10s. prompt, f.o.b. Leith; sulphate of copper, £24. 15s. to £24. 17s. 6d. less 5% Liverpool; white alkali, £5. 2s. 6d. to £5. 10s. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue in fairly good demand and the scarcity and firmness in the coal market tends to stiffen prices. Bleach is steady at £6. 10s. Soda crystals, £2. 17s. 6d. per ton, gross weight, locally. Caustic, 70% £9. 5s., and 76/77% £10. per ton.

Bleaching powder, softs, £6. 10s. per ton, nett; do., hards, £6. 15s. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do., 50%, £4. 17s. 6d. per ton, nett; do., 52%, £5. 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. 0d. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is firm at 10s. per ton, f.o.b. Tees.

COALS.—Market still continues very strong, and there is now very little coal for sale for this month. Gas coals are extremely scarce and command high prices when obtainable. Coke is firm at 30/- per ton, f.o.b. To-day's prices are:—Best Northumbrian steam, 13s. 6d. to 14s. 6d. per ton; second qualities, 12s. 6d. to 13s. 6d. per ton: small steam, 8s. to 8s. 6d. per ton; bunker coals, 13s. 3d. to 13s. 6d. per ton; gas coals, 14s. to 15s; coke, 30s. per ton.

New Companies.

Irish Compressed Peat Fuel Co., Ltd.—CAPITAL £6,000. in £1. shares. This company has been formed to adopt an agreement with A. A. Dickson and to turn to account and deal with the inventions mentioned therein (not further described).

William Briggs & Sons, Ltd.—CAPITAL £15,000. in £1. shares. This company has been formed to acquire the business carried on by W. Briggs at Dundee, and to carry on the business of manufacturing chemist, etc. The subscribers to the memorandum of association are:—W. Briggs, 4, Erskine-terrace, Dundee, manufacturer; Mrs J. Briggs, 4, Erskine-terrace, Dundee; W. A. Briggs, 4, Erskine-terrace, Dundee, manufacturer; J. Briggs, 4, Erskine-terrace, Dundee, manufacturer; Mrs. M. Briggs, 4, Erskine-terrace, Dundee; Mrs. M. Briggs, 7, Sherbrooke-avenue, Pollokshields; J. Briggs, 7, Princes-street, Pollokshields, engineer. Registered office, 13, Panmure-street, Dundee.

St. Mary's Lead Works, Ltd.—CAPITAL £20,000. in £1. shares. This company has been formed to adopt an agreement with Amelia W. Lewis and Charles J. Lee, and to carry on the business of gold, silver, silver lead, lead, iron, copper and general miners and metallurgists. The subscribers to the memorandum of association are: Mrs. A. W. Lewis, 1, Ingleside Grove, Blackheath; C. J. W. Lee, 85, Gracechurch-street, E.C., chartered accountant; M. W. Fuller, 1, Church Court, Clement's Lane, E.C., solicitor; J. A. T. Good, Clevedon, St. Margaret's-road, Brockley, S.E., solicitor; H. E. Straker, 46, Danby-street, Denmark Park, S.E., gentleman; H. J. R. Liversage, 45, Swinton-street, Argyle-square, W.C., gentleman; J. C. Roberts, 37, Iffley-road, Ravenscourt Park, W., gentleman.

William M. Fitzhugh, Ltd.—CAPITAL £63,000. in 60,000 £1. preference shares and 60,000 1s. ordinary shares. This company has been formed to acquire the report and estimate prepared by W. M. Fitzhugh, in the terms of a draft assignment already prepared, to carry on the business of merchants, manufacturers, refiners, distillers, and brokers of vegetable, mineral, and other produce of the soil, oil and oleaginous substances of all kinds (except petroleum), and in particular cotton, cotton goods, cotton seed oil and the by-products and extracts thereof, cotton spinners, manufacturers, miners, chemists, etc. The subscribers to the memorandum of association are:—A. A. Kelsey, 23, Granville-place, W., secretary; W. L. Cox, 24, Sinclair-road, Kensington, W., assistant-secretary; J. A. Chalmers, 25, Sutherland-place, Bayswater, W., mining engineer; B. Gregory, 91, Selhurst-road, S. Norwood, S.E., gentleman; A. E Blanchard, 61, Gleneagle-road, Streatham, S.W., gentleman; F. L. Stephenson, 21, Kensington Gardens-square, W., gentleman; W. S. Henderson, 13, Homefield-road, Bromley, Kent, solicitor. Registered office, 8, Old Jewry, E.C.

Gazette Notices.

PARTNERSHIP DISSOLVED.

J. HOYLE, W. F. and J. A. DICK, asbestos manufacturers and oil refiners, Canning Town, E., and Fenchurch-street, E.C., under the style of Dick's Asbestos Co.

IMPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 25th.

Acetic Acid—

Holland,	166 pks.	A. & M. Zimmermann
,,	100	R. W. Greeff & Co.
Norway,	36	H. G. Brown
,,	77	A. Friend
,,	20	S. C. Dk. Co.

Acetone—

Germany,	14 dms.	J. Norrenberg & Co.
Austria,	48 pks.	E. J. Catlin
,,	5	R. W. Greeff & Co.

Alum—

Holland,	265 pks.	J White

Alumina—

Holland,	45 pks.	R. W. Greeff & Co.

Ammonium Muriate—

Holland,	18 pks.	H. Lorenz

Ammonium Nitrate—

Holland,	50 cks.	S. E. Rly. Co.

Antimony Ore—

Austria,	28 t.	Hughes, Chemery, & Co.
Victoria,	16	James & Shakspeare

Arsenic—

Portugal,	142 pks.	Coverley & Westray
Germany,	38	G. Boor & Co.
Melbourne,	50	G. H. Adams & Co.

Barium Chloride—

Germany,	22 pks.	Petri Brs.

Barium Sulphate—

Belgium,	99 pks.	O'Hara & Hoar

Barytes—

Belgium,	123 pks.	J. L. Lyon & Co.
Germany,	75	,,
,,	10	Becker & Wagner
,,	44	W. Harrison & Co.
Holland,	274	,,
,,	90	Taylor Brs.

Bleaching Powder—

Germany,	83 pks.	J. M. Steel & Co.

Bones—

Brisbane,	1 t.	A. & W. Nesbitt
,,	8	Goad, Rigg. & Co.
Melbourne,	20	Culverwell, Brooks, & Co.

Boracic Acid—

Italy,	18 pks.	A. Laming & Co.

Caoutchouc—

Germany,	3 t.	Wallace Brs.
,,	1 c.	W. T. Henley's Tele. Wks. Co.
,,	1 10	L. & I. D. Jt. Co.
,,	6 2	Prop. Bull Wf.
,,	3 15	W. M. Smith & Sons
,,	1 14	Stiebel Brs. & Co.
Natal,	2 15	Lewis & Peat
,,	17	Major & Field
,,	17	J. T. Rennie, Son, & Co.
U. States,	3	G. T. Benton & Co.
,,	16	Prop. Bull Wf.
,,	8	Major & Field
Holland,	7	Netherlands S. B. Co.
,,	1 15	Anderson, Weber, & Smith
Ibo,	12	Forbes, Forbes, & Co.
Madagascar,	12	Prop. Bull Wf.
Zanzibar,	1 13	L. & I. D. Jt. Co.
,,	1 16	Hale & Son
Aden,	8	Wallace Brs.
Straits,	2 16	Butler's Wf., Ld.
,,	5 11	W. Pope & Co.
Rangoon,	4	Prop. Hay's Wf.
France,	3 4	Van Oppen & Co.

Castor Oil—

Italy,	30 cs.	Major & Field
,,	25	Stenning & Co.

Caustic Potash—

Belgium,	1 t. 16 c.	Wilkins, Campbell, & Co.
France,	15	F. W. Berk & Co.

Chemicals *(otherwise unenumerated)*

Belgium,	510	T. Palmer
,,	73	E. Merck & Co
,,	105	John Cockerill Line
Germany,	22	L. & I. D. Jt. Co.
,,	9	Craven & Co.
,,	163	E. Merck & Co.
,,	39	Argo S. S. Co.
,,	10	J. Norrenberg & Co.
Holland,	420	H. Harkness
,,	7	G. S. N. Co.
,,	64	E. Merck & Co.
Melbourne,	192	L. & I. D. Jt. Co.
France,	10	J. Harrison
,,	15	J. Barber & Co.

Coal Products—

Pitch

N. Russia,	500 brls.	Fellows, Morton, & Co.
,,	400 cks.	Harris Brs.
W. Indies,	120 brls.	Fellows, Morton, & Co.

Tar

N. Russia,	230 brls.	Linck, Moeller, & Co.
,,	212	W. Beard & Son

Cobalt Ore—

N.S.W.,	10 t.	L. & N. W. Rly. Co.

Colours—

Italy,	4 brls.	O'Hara & Hoar

Cream of Tartar—

France,	15 pks.	B. & F. Wf. Co., Ld.
,,	5	F. C. Devon & Co.
,,	3	W. C. Bacon & Co.
,,	8	C. Atkins & Nisbet

Dyestuffs—

Cochineal

Canaries,	12 pks.	W. M. Smith & Sons
,,	8	Swanston & Co.
,,	21	Hendry & Martin
,,	10	Sperling & Williams

Cutch

Rangoon,	10 pks.	H. A. Litchfield & Co.
,,	250	Hicks & Ashmore
,,	736	A. Howden & Co.

Extract

Holland,	57 pks.	M. Benscher
U. States,	115	W. C. Barnes & Co.
,,	100	W. & S. Bowditch
France,	85	L. J. Levinstein & Sons
,,	10	Beresford & Co.
,,	150	Hicks, Nash, & Co.

Austria, 100 Boutcher, Mortimore, & Co.

Gambier
Straits, 730 pks. Prop. Hay's Wf.
" 252 J. Greig
" 56 Soundy & Sons
" 322 Brinkmann & Co.
" 2,013 Adamson, Gilfillan, & Co.
" 84 Fellows, Morton, & Co.

Indigo
E. Indies, 9 chts. L. & I. D. Jt. Co.
" 9 Wallace Brs.
Cochin, 16 Elkan & Co

Myrabolams
E. Indies, 976 pks. W. Pope & Co.
" 1,240 Page, Draper, & Co.

Saffron
Spain, 1 pk. H. Rubeck
" 1 Richardson, Spence, & Co.
" 1 1 cs. Nicholson's Wvs, Ld

Tanners' Bark
Belgium, 22 t. Leach & Co
Melbourne, 24 Baxter & Hoare
" 286 Anning & Cobb
" 110 Escombe Brs. & Co.
" 23 J. R. Francis & Co.
Adelaide, 10 S. Barrow & Bro.
" 2 Rocke & Son
Natal, 26 Flack, Chandler & Co.
" 122 Boutcher Mortimore, & Co.
" 71 A. & W. Nesbitt
Portugal, 25 H. Devitt & Co.

Turmeric
E. Indies, 64 bgs. Perkins & Homer

Valonia
A. Turkey, 85 t. A. Laming & Co.

Dyestuffs (*otherwise unnes.*)—
Holland, 4 pks. L. C. & D. Rly. Co.

Farina—
Holland, 150 pks. J. Barber & Co.
" 200 R. G. Hall & Co.
U. States, 252 W. Wingate, Johnston, & Co.

Glucose—
Germany, 100 pks. 100 c. Trier, Meyer, & Co.
" 25 205 Beresford & Co.
Belgium, 250 500 Pickford & Co.
Holland, 90 50 J. Barber & Co.
France, 300 300 Trier, Meyer, & Co.
U. States, 500 500 Ginner, Morton, & Co.
" 50 280 J. Keiller & Son
" 200 1,250 W. Grose & Co
" 500 2,250 R. G. Hall & Co.
" 250 250 Pearce, Pelly, & Co.
" 100 600 E. & T. Pink
" 500 500 Ohlenschlager Brs
" 850 250 Pickford & Co.
" 250 250 L. & I. D. Jt. Co.

Glue—
Germany, £28 Burrell & Co.
" 30 L. & I. D. Jt. Co.
" 36 R. Ulrich
" 50 H. Lambert
" 600 Deering & Robottom
" 27 T. H. Lee
" 60 Argo S. S. Co.
" 147 Steinhoff, Sons, & Co.
U. States, 18 Ldn. Parcels Del. Co.
France, 100 Davies & Sons
" 571 Prop. Hay's Wf.
" 9 Mess. Parisiennes
" 140 Burnett Brs. & Sons
Belgium, 630 Becker & Wagner

Glycerine—
Adelaide, £75 H. Hill & Sons
Germany, 40 T. H. Lee

Gutta Percha—
Straits, 18 t. 8 c. W. Pope & Co.
" 30 Soundy & Sons
B. Guiana, 1 4 Lewis & Peat

Lithopone—
Holland, 40 pks. Burrell & Co

Manure—
Belgium, 5 t. T. H. Lee
" 11 H. Johnson & Sons
Bombay, 200 Fox, Roy, & Co.
" 100 A. Hunter & Co.
Calcutta, 264 "

Methylic Alcohol—
France, 960 g. Lister & Biggs
U. States, 2,753 H. Wallace & Co.

Molasses—
U. States, 50 cks. 287 c. W. & W. H. Stead, Ld.
" 200 1,261 Grimsdale & Son
" 200 1,000 F. Claydon & Co.
" 300 2,872 Cooperage Whf
" 500 1,660 J. Forsey
" 2 16 L. & I. D. Jt. Co.
Holland, 200 1,100 Ohlenschlager Brs.
U. States, 250 bgs. 250 C. Mangeld & Co.

Ochre—
Holland, 34 pks. Phillipps & Graves
France, 239 W. Harrison & Co.
U. States, 11 Taylor Brs.

Paraffin Wax—
U. States, 6,050 brls. Anglo-American Oil Co.
Rangoon, 551 bxs. H. Hill & Sons
Belgium, 100 cs. "

Phosphate—
Belgium, 236 t. Lawes Chemical Manure Co.
" 160 Anglo-Contl. Guano Works
France, 189 "
" 690 A. Hunter & Co.
Morocco, 1,100 "

Phosphorus—
Canada, 50 pks. Langstaff, Ehrenberg, & Co.

Potash—
Germany, 4 t. 4 c. H. Lambert
" 15 pks. T. H. Lee
U. States, 1 W. Dixon

Potassium Bicarbonate—
Germany, 1 t. 10 c. H. Lambert

Potassium Carbonate—
Germany, 3 t. 5 c. Petri Brs.
" 9 R. W. Greeff & Co.
" 37 6 J. M. Steel & Co.
Canada, 8 Charles & Fox
Austria, 2 16 J. Norrenberg & Co.

Potassium Chlorate—
Sweden, 20 pks. G. Boor & Co.

Potassium Cyanide—
Belgium, 2 pks. L. P. D. Co.

Potassium Muriate—
Germany, 1,000 pks. Bessler, Waechter, & Co

Potassium Prussiate—
Holland, 20 pks. J. Owen

Pyrites—
Spain, 1,300 t. Naylor, Benzon, & Co.
" 1,700 Anderson, Anderson, & Co.
" 1,007 C. Tennant, Sons, & Co.

Red Lead—
Germany, 6 pks. J. Barber & Co.

Rosin—
Belgium, 50 brls. Phillipps & Graves
France, 10 R. James & Co.

Salicylic Acid—
Germany, 24 pks. T. H. Lee

Saltpetre—
Germany, 30 cks. L. & I. D. Jt. Co.
" 70 P. Hecker & Co.
" 190 bgs. "
" 350 S. E. Rly. Co.
E. Indies, 149 Perkins & Homer
Holland, 23 cks. P. Hecker & Co.

Soda—
Austria, 5 t. 12 c. City Coml. Wf.

Soda Lye—
Sweden, 16 pks. R. Waters

Soda Crystals—
Belgium, 6 t. Leach & Co.

Sodium Acetate—
France, 19 pks. J. Harrison

Sodium Bicarbonate—
Holland, 5 c. A. & M. Zimmermann

Sodium Hyposulphite—
Germany, 8 t. 2 c. H. Lambert

Sodium Phosphate—
Holland, 1 pk. Heron, Peron, & Co.

Sodium Sulphate—
Holland, 25 pks. Deering & Robottom

Sodium Sulphide—
Holland, 25 cks. H. Lorenz

Starch—
Austria, 60 pks. Page, Son, & Co.
" 50 J. Barber & Co
Germany, 117 Argo S. S. Co.
" 350 Seaward Brs., Ld.
" 400 J. R. Francis & Co.
" 1,490 Horne & Co.
Belgium, 280 Becker & Wagner
" 97 Leach & Co
" 590 Sawer, Sons, & Co.
" 141 E. & T. Pink
" 302 Kearley & Tonge
" 1,512 T. H. Lee
" 14 C. Tennant, Sons & Co.
" 60 T. Ronald-on & Co.
U. States, 220 L. & I. D. Jt. Co.
" 60 Taylor Brs.
Holland, 20 G. S. N. Co.
" 1,924 Little & Johnston
" 80 Robinson, Roberts, & Co.
" 41 J. Barber & Co.
" 60 E. & T. Pink
France, 1,680 "
" 1,680 W. E. Cole

Stearine—
Belgium, 63 bgs. J. W. Baker
" 63 D. C. Thomas & Sons
" 25 H. Hill & Sons
Germany, 11 H. Lambert
" 50 H. Birdseye & Co.
N. Zealan', 32 cks Dalgety & Co., Ld.
Holland, 25 Netherlands S. B. Co.

Strontium Carbonate—
Holland, 50 pks. R. Waters
" £25 F. W. Berk & Co.

Sulphate (Alumina)—
Holland, 48 pks. Little & Johnston
Belgium, 300 Union Ltge. Co., Ld.

Sulphite (Alumina)—
Holland, 48 pks. Erith & Dartford Ltge. Co.

Sulphuric Acid—
Germany, 37 pks. H. Lambert

Superphosphates—
Belgium, 20 t. Chemical Works (Late H. & E. Albert)

Tallow—
Belgium, 3 cks. T. H. Lee
Argentine, 135 Beresford & Co.
" 165 Phillipps & Graves
N.S.W., 63 Deering & Robottom
Queen'land, 211 Lucas & Spencer's Wf.
" 459 Aust. Meat Co.
" 526 Phillipps & Graves
" 423 Warrington, Naing, & Co.
" 184 Beresford & Co
" 50 N. Z. L. & M. A. Co.
" 258 Dalgety & Co., Ld.
" 1,120 Mordaunt Brs.
N. Zealand, 56 Deering & Robottom
" 550 Goad, Rigg, & Co.
" 31 H. Hill & Sons
" 11 N. M. & A. Co.
" 20 Dalgety & Co., Ld.
" 4 Culverwell, Brooks, & Co.
" 2 N. Z. L. & M. A. Co.
" 230 J. W. Cook & Co., Ld.
" 7 J. Graves
Germany, 9 T. H. Lee
Victoria, 183 H. Lambert
" 239 Phillipps & Graves
" 351 Elkan & Co.
" 49 J. W. Cook & Co., Ld
" 13 pks. J. Ferry & Co.
France, 175 bgs. H. Hill & Sons
Sweden, 100 W. E. Bott & Co.
U. States, 61 bxs. Armour & Co.

Tartaric Acid—
France, 52 pks. B. & F. Wf. Co., Ld.
Holland, 2 "
" 24 Kirkpatrick, Barr, & Co.
Belgium, 24 F. C. Devon & Co.

Ultramarine—
Belgium, 10 pks. J. Harrison
Holland, 2 G. S. N. Co.
" 2 Netherlands S. B. Co.
" 15 W. Harrison & Co.
" 2 J. Owen
Germany, 11 Steinhoff, Sons, & Co.

Varnish—
Germany, 141 pks. Brasch & Rothenstein

White Lead—
Belgium, 20 pks. J. L. Lyon & Co.
" 58 R. Stewart
France, 38 J. Watt & Son
" 38 W. Hampton
Holland, 35 P. Fantaen
" 100 Randall Brs.
" 55 R. Stewart
Germany, 4 J. Barber & Co.
" 41 Taylor Brs.

Wolfram Ore—
Queensland, 4 t. James & Shakespeare

Wood Pulp—
Belgium, 2,105 pks. J. Harrison
Germany, 51 Becker & Wagner
Norway, 1,760 J. Sharp
" 1,625 Andrews & Co., Ld.
Sweden, 4,113 "
" 500 Tough & Henderson

Zinc Oxide—
Belgium, 40 pks. Kerestedji & Co.
France, 50 "
Holland, 50 M. Ashby, Ld.
" 100 Fellows, Morton, & Co.
Germany, 80 M. Ashby, Ld.
" 500 Soundy & Sons
" £30 L. & I. D. Jt. Co.

Zinc White—
Holland, 20 pks. J. Barber & Co.

LIVERPOOL.

Week ending November 23rd.

Acetic Acid—
Rotterdam, 17 pks.

Aluminium—
New York, 363 pks.

Ammonia Salt—
Marseilles, 8 brls.

Ammonium Nitrate—
Antwerp, 35 brls.

Barytes—
Amsterdam, 23 cks.
Antwerp, 83

Boracic Acid—
Leghorn, 50 cks.

Castor Oil—
Calcutta, 159 cs. Ralli Brs.
" 200 "
Leghorn, 15 "
Marseilles, 130 bills.

Chemicals (*otherwise undescribed*)
Fredrikstadt, 14 kgs.

Citric Acid—
Messina, 4 cks.

Coal Products—
Naphtha
Philadelphia, 6,529 brls.

Colours—
Rouen, 4 cks. Co-op. W'sale Society, Ld.
Antwerp, 9
Rotterdam, 4

Copper Precipitate—
Ghent, 101 bgs.

Cottonseed Oil—
New York, 150 brls.

Cream of Tartar—
Genoa, 6 brls.
Bordeaux, 99 cks.
Barcelona, 2 pps., 17 bts.

Dyestuffs—
Cochineal
Gd. Canary, 13 bgs. Canary Islands Trading Co.
Cutch
Rangoon, 1 444 bxs.
Extract
Havre, 21 cks. Cunard S. S. Co.
Nantes, 550 R. J. Francis & Co.
Marseilles, 56 British Dyers' Co.
" qnty.
Rotterdam, 55 "
Rouen, 61 3 cs. Co-op. W'sale Society, Ld.
New York, 125 brls. McArthur & Co.
Leghorn, 100
Fustic
Savannah la Mar 161 t. 10 c.
Saffron
Valencia, 2 cs.
Sumach
Barcelona, 100 bgs.
Palermo, 990

Dyestuffs (*otherwise undescribed*)
Boston, 38 crts. Fassett & Johnston

Farina—
Fiume, 150 bgs.
Glucose—
New York, 100 brls.
Glue—
Antwerp, 20 bgs. J. T. Fletcher & Co.
New York, 10 cs.
Rouen, 25 cks. Co-op. W'sale Society, Ld.
" 26 cs. "
Horn Piths—
B. Ayres, qnty.
Limestone—
Antwerp, 1 crt.
Manure—
Marseilles, 22 bgs.
Mica—
New York, 4 cs. Manhatton R. Co.
" 20 brls
Mineral White—
Fiume, 60 bgs.
Molasses—
Alexandria, 1,183 brls.
Amsterdam, 113 cks.
Nitric Acid—
Hamburg, 1 cs
Ochre—
Almeria, 30 bgs.
Cartagena, 80 brls.
Marseilles, 98
Rouen, 96 cks. Co-op W'sale Society Ld.
Paraffin Wax—
New York, 775 brls. Thompson & Bedford
Phosphoric Acid—
Bremen, 4 cs.
Potash—
Dunkirk, 60 dms.
Rouen, 68 cks. Co-op. W'sale Society Ld.
Potassium Carbonate—
Stettin, 27 cks. Sachse & Klemm
Pyrites—
Huelva, 2,523 t. Matheson & Co.
Rosin—
Charlestown, 2,000 brls.
Bayonne, 2,501
Rosin Oil—
Rotterdam, 25 brls.
Saltpetre—
Calcutta, 289 bgs. Ralli Brs.
Soap—
Boston, 20 cs. J Thompson
Marseilles, 74
Bari, 245
Rotterdam, 2
Sydney, 6 Lever Brs., Ld.
N. Orleans, 1,003 brls.
New York, 3,300 bxs.
Soap Lyes—
Marseilles, 26 dms.
Soap Lye—
Barcelona, 20 cks.
Soap Stock—
Leghorn, 50 brls. T. S. T. Elkington
Soapstone—
Bordeaux, 100 bgs. Geo. G. Blackwell, Sons, & Co.
Starch—
Antwerp, 220 cs J. T. Fletcher & Co.
" 900 "
Ghent, 60 "
Boston, 1
Rotterdam, 20
Amsterdam, 60 bxs.
New York, 400 bgs. T. M. Duche & Sons
Newport News, 400 sks.
Stearine—
Antwerp, 25 bgs. J. T. Fletcher & Co.
" 13 "
Rouen, 50 brls. Co-op. W'sale Society, Ld.
Sulphur—
Catania, 375 bgs. / 134 brls. / 25 cks.
Sulphuric Acid—
Rotterdam, 5 cs.
Sulphur Ore—
Huelva, 9,020 t. H. Bath & Sons
Talc—
Genoa, 280 bgs.
Tallow—
New York, 30 cks. J. W. de Silva & Co.
" 60 pks. / 250 hhds.
Boston, 325 tcs.
B. Ayres, 2,200½ ppi.
Sydney, 747 cks. Lever Brs., Ld.
Montreal, 150 Hughes, Cook, & Co.
Tartar—
Naples, 2 cks.
Patras, 1 brl.
Tartaric Acid—
Barcelona, 2 cks.
Ultramarine—
Rotterdam, 27 cks.
White Lead—
Antwerp, 6 cks.
Rotterdam, 35
Wood Pulp—
Christiania, 50 cs. L. S. Dixon & Co.
Oporto, 500 bxs.
Zinc Oxide—
Antwerp, 14 bls.
Hamburg, 20 cks.
New York, 200 brls.
Rotterdam, 8 / 40 bls.
Zinc White—
Amsterdam, 20 cks

MANCHESTER.

Week ending November 25th.

Alumina Sulphate—
Rotterdam, 18 cks.
Ammonia—
Rotterdam, 15 cs.
Barytes—
Antwerp, 174 bgs.
Rotterdam, 110 / 18 cks.
Calcium Carbide—
Gothenburg, 1 cs.
Chalk—
Hamburg, 8 cs.
Chemicals (*otherwise unescribed*)
Rotterdam, 2 cks.
Coal Products—
Alizarine
Rotterdam, 101 cks.
Aniline Colours
Rotterdam, 51 cks. 29 cs. / 57 brls.
Colours—
Antwerp, 5 cs
Rotterdam, 13 cks. 14
Cream of Tartar—
Antwerp, 3 cks.
Dyestuffs—
Extract
Antwerp, 1 brl.
Indigo
Rotterdam, 2 chts.
Farina—
Hamburg, 300 bgs.
Stettin, 2,570 W. H. Stott & Co.
Gelatine—
Antwerp, 6 bls.
Glucose—
Stettin, 500 bgs. W. H. Stott & Co.
Glue—
Antwerp, 7 bls.
Hamburg, 200 bgs.
Rotterdam, 430 10 cs.
Glycerine—
Rotterdam, 2 dms.
Lead Acetate—
Antwerp, 14 brls.
Hamburg, 7 cks.
Rotterdam, 18
Limestone—
Antwerp, 3 crts. 4 cs.
Litharge—
Rotterdam, 52 cks.
Paraffin Wax—
New York, 887 brls.
Phosphate—
Savannah, 1,224 t.
Potash—
Hamburg, 20 cks.
Potassium Carbonate—
Hamburg, 20 cks.
Potassium Prussiate—
Antwerp, 2 cs.
Potassium Sulphate—
Rotterdam, 8 cks.
Prussiate—
Antwerp, 16 brls.
Rosin—
Savannah, 2,000 brls.
Sodium Acetate—
Antwerp, 41 cks,
Sodium Aluminate—
Hamburg, 1 ck.
Sodium Chlorate—
Gothenburg, 12 cks.
Sodium Phosphate—
Rotterdam, 35 cks.
Starch—
Antwerp, 634 cs.
Ghent, 60
Montreal, 7,775 bgs.
New York, 1,799
Rotterdam, 230
Sulphuric Acid—
Rotterdam 20 dms.
Tallow—
New York. 50 hds.
Tannic Acid—
Hamburg, 12 cks.
Tannin—
Rotterdam, 1 ck.
Tartar Emetic—
Hamburg, 18 cks.
Tartaric Acid—
Hamburg, 8 cks.
Rotterdam. 24
Waste Salt—
Hamburg, 50 bgs. (and a qty.)
Wood Pulp—
Christiania, 80 bls.
Gothenburg, 1,603 bdls. 1,585
Hamburg, 57
Montreal, 1,376 398 pks.
Quebec, 4,053
Rotterdam, 102 rolls 19
Skein, 1,800 bls.
Tofte. 1,480
Zinc Oxide—
Hamburg. 5 cks.
Zinc Sulphate—
Gothenburg, 20 bgs.
Zinc White—
Rotterdam, 40 cks.

GLASGOW.

Week ending November 30th.

Acetic Acid—
Christiania, 31 brls.
Rouen, 9 cks.
Acetone—
Hamburg, 19 dms.
Alum—
Rotterdam, 15 cks.
Asbestos—
Genoa 98 pks. / 5 cs.
Montreal, 480 sks.
Barium Sulphate—
Antwerp, 600 bgs.
Barytes—
Rotterdam, 12 cks. J. Rankine & Son
190 bgs. "
Castor Oil—
Leghorn, 15 cs.
Marseilles, 226 cks.
Chalk—
Leghorn, 5 cs.
Chemicals (*otherwise undescribed*)
Hamburg, 9 cks. / 3 dms.
Coal Products—
Alizarine
Rotterdam, 81 cks. J. Rankine
23 brls. 1 bx. & Son
Aniline
Amsterdam, 5 cks. J. Rankine
1 cs. & Son
Rotterdam 16 / 236 cks. "
Colours—
Hamburg, 26 cks. / 2 cs.
Rotterdam, 4 cks. / 8 / 34 brls. / 8 bxs. J. Rankine & Son
" 2 cs.
Rouen, 2 cks.
Cream of Tartar—
Genoa, 13 brls.
Dyestuffs—
Extract
Rouen, 10 cks.
Nantes, 50
New York, 24 brls.
Indigo
Rotterdam, 9 chts. J. Rankine & Son
Valonia
Smyrna, 1,000 t. Martin & Millar
Farina—
Hamburg, 100 bgs.
Glucose—
New York, 299 brls.
Glue—
Genoa, 24 brls.
Nantes, 30 bgs.
Rouen, 20 / 31 bls. / 41 cks.
Hamburg, 107 bgs.
Rotterdam, 20 J. Rankine & Son
" 50
Gutta Percha—
Hamburg 1 bg.
Lead Acetate—
Genoa, 50 brls.
Hamburg, 16 cks.
Manganese—
Rotterdam, 8 cks.
Manure—
Bombay, 6,266 bgs.
Natrium Chromate—
Hamburg, 20 cks.
Nickel Ore—
Muco, 1,700 t. Nickel Co.
Ochre—
Rouen, 52 cks.
Oxalic Acid—
Rotterdam, 6 cks. J. Rankine & Son
Hamburg, 15
Paraffin Wax—
Hamburg, 220 dms.
Philadelphia, 360 brls.
Plumbago—
Genoa, 600 bgs.
Potash—
Rotterdam, 24 cks. J. Rankine & Son
Hamburg, 63 / 60 dms.
Montreal, 23 brls.
Potassium Chlorate—
Marseilles, 20 cks.
Pyrites—
Huelva, 2 096 t. Tharsis Sulp. & Copper Co.
Rosin—
Bordeaux, 75 cks.
Brunswick, 2,863
Rosin Oil—
New York, 25 brls.
Salicylic Acid—
Hamburg, 2 cs.
Saltpetre—
Hamburg, 115 cks. / 3 cs.
Soap—
Genoa, 113 cs.
Leghorn, 40
New York, 1000 / 105 brls.
Soap Lyes—
Marseilles, 60 cks. / 10 dms.
Soda—
Rouen, 9 cks.
Sodium Chlorate—
Marseilles, 9 cks.
Stearine—
Amsterdam, 60 bgs. J. Rankine & Son
Sulphur—
Catania, 136 brls. / 1025 bgs.
Sulphur Chloride—
Rotterdam, 17 ballns.
Tallow—
Philadelphia, 100 tcs.
Tartar—
Oporto, 6 cks.
Naples, 5

Tartaric Acid—
Rotterdam, 22 cks.
Ultramarine—
Antwerp, 2 cks.
Rotterdam, 7 cs. J. Rankine & Son
2 cks.
Varnish—
Antwerp, 6 crts. 1 ck. / 1 bkt.
New York, 37 brls.
Waste Salt—
Hamburg, 2300 bgs. / 150 t. / 372 cks.
Wood Pulp—
Drammen, 2,180 bls.
Tofte, 816
Christiania, 688 40 cs.
Gothenburg, 240
Zinc Oxide—
Antwerp, 12 cks.
Rotterdam, 50
Zinc White—
Rotterdam, 25 cks. J. Rankine & Son
" 75 pks.

HULL.

Week ending November 25th.

Acetic Acid—
Bremen, 24 crbys.
Aluminium—
New York, 169 bxs. Wilson, Sons, & Co., Ld.
Ammonia—
New York, 59 cyldrs.
Barytes—
Amsterdam, 23 cks. Hull & Netherlands S. S. Co
Antwerp, 35 bgs. / 55 cks.
Bremen, 72 Sissons Brs. & Co.
Chemicals *(otherwise undescribed)*
Ghent, 150 bgs. Wilson, Sons, & Co., Ld.
Chromium Sulphite—
Rotterdam, 4 pks. Hull & Netherlands S. S. Co.
Coal Products—
Alizarine
Rotterdam, 45 pks. / 120 brls.
Aniline
Rotterdam, 224 pks. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 16 cks. Hull & Netherlands S. S. Co.
Pitch
Dunkirk, 21 cks.
Tar
Konigsberg, 200 brls. Wilson, Sons, & Co., Ld.
Colours—
Antwerp, 3 cks. Storry, Smithson, & Co.
" 1 cs. Storry, Witty, & Co.
" 19 pks. Wilson,
87 cks. Sons, & Co., Ld.
Hamburg, 6 "
Rotterdam, 11 / 187 pks. Hull & Netherlands S. S. Co. / 34 brls. / 1 cs.
Stettin, 21 cks. Wilson, Sons, & Co., Ld.
Venice, 20
Cottonseed Oil—
New York, 101 brls. Wilson, Sons, & Co., Ld.
Cream of Tartar—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.
Dextrine—
Stettin, 200 bgs.
Dyestuffs—
Extract
Rouen 29 cks.
Indigo
Rotterdam, 12 pks. Hull & Netherlands S. S. Co.
20 brls.
Sumach
Palermo, 200 bgs.
Trieste, 317 bls. Wilson, Sons, & Co., Ld.
Valonia
Smyrna, 200 t.
Dyewood—
Antwerp, 50 bls. Wilson, Sons, & Co., Ld.
Farina—
Stettin, 260 bgs. Wilson, Sons, & Co., Ld.
" 40
Gelatine—
Rouen, 10 cs. Wilson, Sons, & Co., Ld.
Glucose—
New York, 500 brls.
Rotterdam, 80 bgs. Hull & Netherlands S. S. Co.
Stettin, 10 cks.
Glue—
Hamburg, 50 bgs. Bailey & Leetham, Ld.
" 50 Wilson, Sons, & Co., Ld.
Philadelphia, 10 brls.
Rouen, 48 pks. "
Rotterdam, 50 bgs. Hull & Netherlands S. S. Co.
Glycerine—
Rouen, 40 cks.
Paint—
Amsterdam, 22 dms. Hull & Netherlands S. S. Co.
1 cs.
Phosphate—
Antwerp, 50 bgs. Wilson, Sons, & Co., Ld.
Potash—
Antwerp, 95 cks. Wilson, Sons, & Co., Ld.
Bremen, 9 Veltmann & Co.
Dunkirk, 40 Wilson, Sons, & Co., Ld.
" 34 pks
Hamburg, 17 dms.
Rosin—
Trieste, 23 pks. Wilson, Sons, & Co., Ld.
Saltpetre—
Hamburg, 50 bgs. / 51 pks.
Soap—
Bari, 8 cs. Wilson, Sons, & Co., Ld.
Boston, 8 "
New York, 4 brls. "
Soapstone—
Fiume, 1,000 bgs.
Soda—
Antwerp, 700 bgs. Wilson, Sons, & Co., Ld.
Fiume, 44 cks. "
Sodium Nitrate—
Hamburg, 1 ck. Bailey & Leetham, Ld.
Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
10 cs.
Antwerp, 60
Bremen, 3,652 Veltmann & Co.
" 1,978 pks. "
Ghent, 175 cs. Wilson, Sons, & Co., Ld.
New York, 250 bgs.
Stearine—
Amsterdam, 25 bgs. Wilson, Sons, & Co., Ld.
Sulphur—
Catania, 1,080 bgs. / 197 cks.
Talc—
Trieste, 200 bgs. Wilson, Sons, & Co., Ld.
Tallow—
Dunkirk, 91 cks. Wilson, Sons, & Co., Ld.
New York, 285 trcs. "
Tartaric Acid—
Bari, 62 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 6 Hull & Netherlands S. S. Co.
Turpentine—
Libau, 50 brls.
Ultramarine—
Rotterdam, 5 cs. Hull & Netherlands S. S. Co.
6 cks.
Varnish—
Hamburg, 2 cks. Wilson, Sons, & Co., Ld.
White Lead
Antwerp, 43 cks. Bailey & Leetham, Ld.
Rotterdam, 40 cs. Hull & Netherlands S. S. Co.
20 pks.
Wood Pulp—
Bergen, 58 pks. Wilson, Sons, & Co., Ld.
Christiania, 2,661 "
Gothenburg, 720 "
" 94
Hamburg, 780 "
Helsingfors, 1,292 bls. J. Good & Sons
" 169

TYNE.

Week ending November 25th.

Asbestos—
Montreal, 240 bgs.
Hamburg, 3 crts. Tyne
118 bgs. S. S. Co.
Rotterdam, 114 "
Barytes—
Rotterdam, 99 cks. Tyne S. S. Co.
Colours—
Antwerp, 1 ck. Tyne S. S. Co.
Glucose—
Baltimore, 200 brls. Furness, Withy, & Co.
Glue—
Antwerp, 22 bls. Tyne S. S. Co.
Limestone—
Antwerp, 5 crts. Tyne S. S. Co.
Potash—
Hamburg, 2 cks. Tyne S. S. Co.
Red Lead—
Rotterdam, 16 cks. Tyne S. S. Co.
Rosin—
Baltimore, 500 brls. Furness, Withy, & Co.
Hamburg, 16 cs. Tyne S. S. Co.
Salammoniac—
Rotterdam, 2 cks. Tyne S. S. Co.
Soap—
Rotterdam, 3 cs. Tyne S. S. Co.
Starch—
Amsterdam, 80 cs. W. Swanston & Sons
Antwerp, 189 Tyne S. S. Co.
Ghent, 50 "
Rotterdam, 24 "
Stearine—
Antwerp, 20 bgs. Tyne S. S. Co.
White Lead—
Antwerp, 13 cks. Tyne S. S. Co.
Wood Pulp—
Bergen, 61 bls. P. H. Matthiessen & Co.
Zinc Oxide—
Rotterdam, 20 cks. Tyne S. S. Co.
Zinc White—
Antwerp, 5 brls. Tyne S. S. Co.

GOOLE.

Week ending November 22nd.

Alkali—
Calais, 7 cks.
Antimony—
Boulogne, 1 ck.
Barium—
Hamburg, 20 cks. 5 cs.
Barytes—
Antwerp, 120 bgs. / 61 cks.
Caoutchouc—
Boulogne, 2 cks.
Coal Products—
Alizarine
Rotterdam, 2 cks.
Aniline
Amsterdam, 1 ck. 3 cs.
Colours—
Hamburg, 12 cks.
Rotterdam, 427 39
Dyestuffs *(otherwise undescribed)*
Antwerp, 7 cks.
Boulogne, 26 4 cs. 53 pks.
Dyestuffs—
Extract
Hamburg, 2 cs.
Farina—
Hamburg, 100 bgs.
Glucose—
Calais, 100 bgs.
Glue—
Boulogne, 5 cks.
Glycerine—
Hamburg, 4 dms.
Ochre—
Dunkirk, 19 cks.
Paint—
Hamburg, 15 cks. 2 cs.
Potash—
Antwerp, 4 cks. 19 dms.
Calais, 22 35
Dunkirk, 4
Hamburg, 2
Rotterdam,
Saltpetre—
Rotterdam, 100 bgs.
Soda—
Ghent, 2 cks.
Starch—
Antwerp, 111 cs.
Ghent, 54 bxs.
Tartar—
Rotterdam, 13 cks.
Waste Salt—
Hamburg, 608 bgs. / 334 t.
Zinc Oxide—
Antwerp, 8 brls.

GRIMSBY.

Week ending November 25th.

Barytes—
Rotterdam, 200 bgs.
Caoutchouc—
Antwerp, 1 cs.
Hamburg, 26
Rotterdam, 2
Chemicals *(otherwise undescribed)*
Hamburg, 8 pks.
Rotterdam, 2 cks.
Colours—
Antwerp, 36 cks. 16 pks.
Hamburg, 31 2 cs. 124
Rotterdam, 1 5
Dyestuffs—
Extract
Hamburg, 2 cks.
Farina—
Hamburg, 300 bgs.
Glue—
Dieppe, 4 bgs.
Rotterdam, 20
Starch—
Antwerp, 80 cs.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending November 29th.

Acids—
Pt. Elizabeth, 15 cks. £84
Madras, 3 cs. 16
Cochin, 3 12
Alkali—
New York, 1 t. 10 c. £25
Ammonia—
Wellington, 8 cs. £11
Ammonia (Anhydrous)—
Amsterdam, 4 cyldrs. £14
Ammonium Carbonate—
Hiogo, 2 t. 10 c. £79
New York, 85 cks. £61
Sydney, 20 cs. 34
Ammonium Sulphate—
Jersey, 8 t. 1 c. £42
Valencia, 65 360

Alicante, 180 2,003
Hamburg, 200 2,385
Gandia, 197 2,204
Malaga, 52 530
Antwerp, 50 550
Bremen, 100 1,140

Bisulphite of Lime—
Cape Town, 1 t. 1 c £14
Calcutta, 5 6 79

Borax —
Auckland, 5 t. £100
Melbourne, 1 46

Calcium Chloride—
Colombo, 7 t. 5 c. £22

Carbonic Acid Gas—
Channel Is., 30 tubes £11
Hong Kong, 4 cs. 15

Caustic Soda—
Bombay, 5 c. £6
Chinde, 6 10
E. London, 2 t. 7 47
Wellington, 4 19 51

Chemicals *(otherwise undescribed)*
Bombay, 19 cs. £62
Lyttelton, 3 18
Kobe, 3 63
Madras, 20 kgs. 23
Adelaide, 37 pks 112
Cape Town, 1 10
E. London, 25 18
Channel Is., 3cks, 10
Antwerp, 10 46 402
Rotterdam, 2 31 128
Oporto, 4 28
Hamburg, { 24 33 dms. 228 / 2 kgs.
Singapore, 4 10
Perth, 11 11 pks. 64
Melbourne, 7 25 203
Boulogne, 4 62
Sydney, 3 36
Montreal, 40 60
Amsterdam, 5 8 45

Citric Acid—
Sydney, 5 c. £35
Colombo, 1 8
Hamburg, 1 ck. 12 kgs. 117
Malta, 2 15
Stettin, 2 13
Reval, 12 79
Rotterdam, 20 124
Durban, 1 9

Coal Products—
Alizarine
Reval, 6 cs. £300
Libau, 12 575
Boston, 14 cks. 182
Aniline
Calcutta, 3 cs. £37
Rio de Janeiro, 1 5
Aniline Dyes
Odessa, 8 kgs. £175
Calcutta, 1 cs 69
Amsterdam, 48 brls. 270
Anthracene
Rotterdam, 455 cks. £645
Benzine
Brisbane, 39 pks. £11
Carbolic Acid
New York, 5 cks. £40
Sydney, 60 dms. 25
Bombay, 5 cs. 20
Yokohama, 300 933
Melbourne, 200 90
Adelaide, 2 6
Aden, 5 8
Coal Tar Dyes
Boston, 5 pks. £49
Boulogne, 5 cks. 3 132
Creosote
Newport News, 250 cks. £160
New York, 240 188
Naphtha
Antwerp, 13 cks. £35
Naphthaline
Cologne, 6 cks. 604 bgs. £208
Tientsin, 4 6
Pitch
Ibrail, 110 brls. £38
Melbourne, 10 rnlts. 13
Rosario, 8 cks. 6
Antwerp 820 t. 1,440
Amsterdam, 1,173 1,760
Aviles, 1,456 2,256
Pyridine
Stettin, 10dms. £42
Hamburg, 4 105
Tar
Colombo, 30 rnlts. £37
Melbourne, 10 14
Hamburg 400 brls. 181
E. London, 200 dms. 10
Calcutta, 100 87
Toluol
Cologne, 25dms. £265

Coal Products *(otherwise undes.)*—
Genoa, 12 brls. £24

Copper Sulphate—
Dunkirk, 5 t. 2 c. £127
Hobart, 3 5 70

Cream of Tartar—
Melbourne, 10 c. £38
Dunedin, 5 18
Fremantle, 5 20
Sydney, 1 t. 73
Wellington, 10 38

Disinfectants—
Bombay, 25 cs. £13
Vancouver, 10 dms. 10
Hamburg, 25 cks 100
Montreal, 10 15
Adelaide, 10 30
Alleppey, 2 12
Fremantle, 23 47
Cape Town, { 20 250 / 100pks. 125
Karachi, 10 22
Sydney, 3 13 64

Glycerine—
New York, 101 t. 12 c. £3,180

Manure—
Hamburg, 89 t. £712
E. London, 30 415
Channel Is., 1 t. 5 c. 24
Cape Town, 335 9 1,447
Colombo, 50 250
Jersey, 345 4 235

Oxalic Acid—
Melbourne, 1 t. 10 c. £43

Oxygen Gas—
Amsterdam, 1 cs. £14

Phosphoric Acid—
Sydney, 10 cs. £70

Potassium Cyanide—
Cartagena, 2 cs. £22
Auckland, 5 t. 520
Melbourne, 5 16 c. 548
Geraldton, 10 56
Fremantle, 45 6 440 9,143

Potassium Prussiate—
Reval, 6 t. 13 c. £430

Saltpetre —
Madeira, 10 c. £11
Sydney, 9 t. 197
Santos, 2 43
Corinto, 10 11

Sheep Dip —
Sydney, 4 t. 1 c. £175
B. Ayres, 300 cks. 1,500 cs. 3,575

Soda—
Bombay, 1 t. 4 c. £10
Zanzibar, 15 7
Cape Town, 5 9

Soda Ash—
Adelaide, 31 c. 19 c. £1.6

Soda Crystals—
Cape Town, 4 t. 1 c. £13

Sodium Acetate—
Cape Town, 2 t. £61

Sodium Bicarbonate—
Durban, 15 c. £6

Sodium Carbonate—
Fremantle, 10 c. £7

Sodium Sulphate—
Ghent, 50 t. £75

Strychnine—
Sydney, 3 cs. £20

Sulphur —
B. Ayres, 1 t. £13
Jeddah, 1 7

Sulphuric Acid—
Jersey, 5 crbys. £10
Alleppey, 25 cs. 20
Cape Town, 18 c. 20 23
Geelong, 78 31
Durban. 64 70

Superphosphates—
Jersey, 25 t. £78

Tartaric Acid—
Cape Town, 2 c. £21
Adelaide, 5 27
Calcutta, 3 cs. 13

LIVERPOOL.

Week ending November 29th.

Acetic Acid —
Auckland, 9 c. £16

Aluminous Cake—
Calcutta, 41 t. £96

Ammonium Carbonate—
Bordeaux, 1 t. £23
Odessa, 4 10 c. 117
Rouen, 1 29
Hamburg, 14 23
Marseilles, 1 1 2 q. 30

Ammonium Muriate—
New York, 16 t. 14 c. £410
Bourgas, 6 6
Philadelphia, 25 8 3 q. 635

Ammonium Sulphate—
Samarang, 1 3 t. 16 c. 2 q. £1650
Sourabaya, 30 330
Cullera, 75 940
Bordeaux, 20 5 1 213
Las Palmas, 10 3 3 110
Demerara, 30 12 2 326
Norfolk Va., 125 13 1,411
Castellon, 101 5 1,137
New York, 75 11 817
Philadelphia, 125 2 1,450
Valencia, 60 12 1 703

Bleaching Powder—
Alexandria, 10 brls.
Bilbao, 30 cks.
Boston, 193
Johannesburg, 158
Middleton, 46
Muncie, 79
New York, 44
Niles, Mich., 20
Oporto, 27 kgs.
Philadelphia, 111
Rio de Janeiro, 29
Rotterdam, 69
Syra, 5
Vera Cruz, 41
Windsor Mills, 33

Boracic Acid—
Hamburg, 6 t. 10 c. 1 q. £170
New York, 1 20

Borate of Lime—
Rouen, 1 t. 2 c. £13

Borax—
Hiogo, 3 t. 7 c. 2 q. £56
Piræus, 11 33
Antwerp, 10 208
Ghent, 2 9 40
Hamburg, 10 13 3 177
Portland, M., 5 2 3 85
Melbourne, 7 115
Sydney, 8 2 133

Calcium Chloride
M. Video, 7 t. 3 c. £18
Colombo, 2 2 5
Baltimore, 13 6 25
Rouen, 10 5 29
New York, 10 2 19

Castor Oil—
Secondee, 11 cs.

Caustic Soda—
Adelaide, 7 dms.
Alexandria, 150
Algoa Bay, 40 bxs.
Almeria, 10
Antwerp, 35 133 cks.
Barcelona, 440 131 20 pks.
Bari, 58
Batavia, 40
Beyrout, 20
Bremen, 35
B. Ayres, 150
Calcutta, 100
Callao, 50
Christiania, 7 brls.
Curacao, 5
Genoa, 6
Hamburg, 112
Hamilton, 3
La Guayra, 28
Madeira, 10
Madras, 20
Matanzas, 75
Melbourne, 104 20 hhds.
M. Video, 25
New York, 90
Odessa, 111
Oporto, 30
Paris, 105
Paysandu, 100
Pernambuco, 50
Porto Alegre, 100
Rio de Janeiro, 32
Rotterdam, 141
Rouen, 125
San Francisco, 200
Santa Catharina, 23 50 bgs.
Santos, 75
Seville, 830 10 brls.
Singapore, 12 bxs.
Sydney, 20
Talcahuano, 30
Tarragona, 50
Trinidad, 40
Vera Cruz, 245
Winnipeg, 50

Chemicals *(otherwise undescribed)*
Bombay, 70 brls. £57
Callao, 6 t. 14 c. 30
Oporto, 2 5 2 cs. 37
Genoa, 1 5 10 140
B. Ayres, 4 18 3 q. 95
Smyrna, 17 9 79
Cape Town, 1 10 1 11
Volo, 1 9 8
Piræus, 4 16 22
Patras, 1 4 5
Santos, 5 19 28
Hamburg, 2 9
Rio de Janeiro, 7 700
Calcutta, 2 5 78
Halifax, 1 2 2
Las Palmas, 10 2 20
Sydney, 3 15 22
Wellington, N.Z., 1 16
Melbourne, 9 19 84
Adelaide, 1 1 37
Christiania, 1 10 1 25
Barcelona, 14 8 2 227
Cienfuegos, 4 3
Santiago, 1 3 3 19
Trieste 5 25

China Clay—
Baltimore, 711 cks.
Bombay, 888
Boston, 626
Newport News, 440
New York, 425 t.
Pernambuco, 6
Philadelphia, 5
Portland, 250

Choride of Lime—
Pernambuco, 13 c. £5

Citric Acid—
Singapore, 2 cks. £12
New York, 10 c. 68
Lisbon, 5 36
Odessa, 5 38

Coal Products
Aniline Colour
Genoa, 8 kgs. 1 cs.
New York, 46 cks. 1
Aniline Oil
Barcelona, 30 cks.
Genoa, 20 dms.
Aniline Salt
Genoa, 10 kgs.
New York, 24 cs.
Otaka, 50
Rotterdam, 40
Syra, 4 cks.
Vera Cruz, 20 brls.
Carbolic Acid
Hamburg, 6 t. 7 c. 3 q. £156
Yokohama, 9 7
Rio de Janeiro, 2 10 1 85
Oporto, 10 cs. 50
Creosote Oil
Newport News, 350 brls.
Pitch
Bilbao, 40 brls.
St. John's, Nfd., 7
Tar
Delagoa Bay, 100 dms.
Philadelphia, 125 brls.
Vera Cruz, 10

Copperas
St John, N.B., 5 t. 10 c. £11
Wellington, N.Z., 5 6 10

Copper Sulphate—
Algiers, 10 t. 1 c. £256
Bordeaux, 9 16 237
Lisbon, 5 100
Calcutta, 6 139
Genoa. 5 2 q. 117
Sydney, 12 299
Trieste, 67 1 3 1,546
B. Ayres, 6 17 3 171
Syra, 14 3 17
Pernambuco, 5 6
Venice, 29 18 646

Disinfectants—
Rio de Janeiro, 8 c. £33

Glycerine—
Valparaiso, 4 t. 3 c. 1 q. £250
Sydney, 5 265
Rotterdam, 9 14 378
Montreal, 9 16 3 590
Constantinople, 4 11

Magnesia —
Lisbon, 1 cs.

Magnesium Chloride —
Genoa, 7 t. 12 c. £20

Manure—
Marseilles, 26 t. £104
Teneriffe, 1 5

Paint—
Algoa Bay, 196 kgs.
Antwerp, 34
Boston, 10

Cairo, 30 dms.
Calcutta, 18 80
Campêche, 150
Cape Town, 40
Cardenas, 3 cks.
Cavite, 26
Colombo, 2
Constantinople 231 174
Delagoa Bay, { 20 / 26 cs.
Gozo, 26
Gibraltar, 94 pks.
Hamburg, 12
Havana, { 1 / 19 cks.
Iquique, { 4 / 40 cs.
Iquitos, 47
Kerasunde, 4 cks.
Las Palmas, 75
Lisbon, 79 10 dms.
Loando, 4
Manaos, 30
Manila, 8
Matanzas, 17
Nassau, 25 2
N. Orleans, 6 cs.
Panama, 2
Para, 7 cks.
Perim, 30
Piræus, 1
Ponce, 2
Punta Arenas 2 14
Sierra Leone, 35
Shanghai, 471 60
St. John's Nfd. 110
St. Croix, 4 cs.
Symi, 1 ck.
Talcahuano, 30
Valparaiso, 10 cs.

Painters Colours—

Bremen, 700 bgs.
B. Ayres, 409 pks.
Cartagena, 330 kgs.
Gibraltar, 57 4 cks.
Hamburg, 100 bgs.
Iquitos, 20 kgs.
Manaos, 17
M. Video, 15 cs.
La Libertad, 100 2 brls
Marseilles, 50
Newcastle, 10
N. Orleans, 7
Oporto, 44 cks.
Pernambuco, 20 brls.
Rotterdam, 150 bgs.
Valparaiso, { 2 kgs. / 10 cks. / 13 cs.

Paraffin Wax—

Pernambuco, 8 cks.
Rouen, 10 bls.

Pearl Ash—

Rio de Janeiro, 21 c. 2 q. £12

Phosphorus—

Kobe, 3 t. £ 95

Phosphorus (Amorph.)—

Hiogo, 86 cs. £685
Havana, 1 2
Tampico, 1 7

Potassium Bichromate—

Vera Cruz, 4 c. £6

Potassium Chlorate—

Ancona, 1 t. £30
Batoum, 10 c. 16
Lisbon, 5 8
Mollendo, 10 cks. 17
M. Video, 1 t. 30
New York, 2 10 75
Philadelphia, 2 10 77
Rotterdam, 2 59
San Francisco, 2 10 75
Sao Paulo, 2 62
Sydney, 5 150
Varna, 5 8

Potassium Stannate—

Bombay, 1 t. 1 q. £36

Salammoniac—

B. Ayres, 1 t. 13 c. 3 q. £68
Calcutta, 1 10 54
Dedeagatch, 9 cks. 36
Galatz, 1 t. 2 38
Havana, 3 6
Salonica, 2 3 72
Smyrna, { 5 cks. / 4 2 62
Trieste, 5 2 9

Salt—

Adelaide, 10 t.
Antwerp, 510
Baltimore, 420
Boston, 200
B. Ayres, 33 10 c.
Calcutta, 2,744
Cameroons, 189 11
Chicago, 255
Fernando Po, 76
Ghent, 400
Konilon, 72 11
Kribi, 19 13
Lagos, 50
Loango, 31 10
M Video, 8 10
Mauritius, 100
N. Orleans, 895
Newport News, 575 9
New York, 110
Noqui, 17 17
Old Calabar, 20
Para, 417 3
Pensacola, 200
Plantation, W.C.A., 50
Pt. Elizabeth, 8 19
Pt. Natal, 5
Rio de Janeiro, 4 2
Rotterdam. 193
San Francisco, 172 15
Savannah, 100
Sierra Leone, 234 5
R. Munez, 200
Sydney, 125
Valparaiso 2 3

Salt Cake—

Antwerp, 120 t. £150
Lisbon, 30 48
Philadelphia, 30 12 c. 17
Setubal, 120 150

Saltpetre—

Barcelona, 1 t. 5 c. £27
Cienfuegos, 1 4 2 q 26
Para 15 11

Sheep Dip—

B. Ayres, 1 t. 15 c. £273
Buenaventura, 2 5
New York, 2 6 35
Melbourne, 11 28

Soap—

Acrra, { 300 bxs. / 30 c.
Alexandria, { 2 brls. / 48 cs.
Algoa Bay, 325
Assinee, 80
Axim, 475
Baltimore, 25
Bangkok, 4
Barbadoes, 200
Batanga, 50
Batavia, 90
Beira, 150
Bombay, 1,597 30 pks.
Boston,
Brisbane, 3
Brussels, 200
B. Ayres, 1
Calcutta, { 30 300 bdls. / 6 brls.
Cameroons, 300
Cairo, 60
Callao 15 ½ cs.
Cape Town, 1,353 58
Christiania. 120 300
Colombo, 85
Colon, 550
Constantinople, 50
E. London, 625
Gaboon, 45
Genoa, 28
Gibraltar, 260
Grenada, 115
Halifax, 400
Hamburg, 10
Iquitos, 250
Johannesburg, 200
Kingston, Jam., 1
Kouilliou, 160
Macassar, 500
Loango, 20
Malta, 50
Manaos, 550
Manila, 1
Mannheim, 2,102
Manta 300
Matadi, 100
Mauritius, 3,959
Menado, 1,050 1
Montserrat, 40
Mos-el Bay, 1,500
Montreal, 6 pks.
New York, 6 cks.
Old Calabar, 123
Para. 700 703 100 bdls.
Plantation, 40
Portland, 2
Pt. Natal, 800 74
Pt. Said, 25
Puerto Cortez, 100
Rangoon, 200 41
Rotterdam, 5 380
Salt Pond, 125
San Juan, 100
Shanghai, 3,106
Sierra Leone, 410
Singapore, 2,851 10
Smyrna, 8 50
St. Kitt's, 306
St. Lucia, 25
Surinam, 75
Sydney, 1,100 10 cks.
Tabou, 20
Tadi, 50
Tangiers, 42
Teneriffe, 1,050
Ternate, 500
Toronto, 2,000
Trinidad 400
Valparaiso, 110 30
Vera Cruz, 2
Victoria. W.C.A., 50
Zanzibar, 250 bdls.

Soda Ash—

Adelaide, 29 cks.
Ancona 100 bgs.
Baltimore. 1 0 230
Barcelona, 109
B. Ayres, 50 brls. 89
Calcutta, 250 404
Callao, 30
Christiania. 500 9
Copenhagen, 940
Coquimbo, 10
Dunedin, 67
Fiume, 93
Genoa, 520
Gothenburg, 104
Leghorn, 100 64
Maranham, 50
Messina, 50
Newport News, 800
New York 470 346 tcs.
Pernambuco, 30
Philadelphia, 2,040 99 75
Rio de Janeiro, 75 brls.
Piræus, 50 75 23
Rio G. do Sul, 20
Rotterdam, 1,069
San Francisco, 536
San Sebastian, 50 23
Santos, 25
Skein. 50
Smyrna, 100
Tetschen, 23
Turin, 1 0
Wellington, 10

Soda Crystals—

Bombay 200 kgs.
Cape Town. 10 25 brls.
Constantinople, 135
M. Video, 67
Malta, 150 bgs.
Naples, 34
Sfax, 32
Singapore, 1 ck.
Smyrna, 100

Sodium Bicarbonate—

Alexandria, 70 kgs.
Alicante. 20 2 cks.
Antwerp, 180 4
Beira, 80
B. Ayres, 10
Calcutta, 500 27 brls.
Cape Town, 48 bgs. / 60 kgs.
Constantinople, 85
Durban, 15
Genoa. 30 9
Havana, 50
Havre, 10 dms.
Invercargill. 20
Kiliva, 10
Madras, 20 bgs.
Malaga, 123
Malta. 12
Marseilles, 39
Melbourne, 20 kgs.
Mexico City, 260
Mossel Bay, 10 bgs.
Odessa, { 70 kgs. / 300 / 3 cks.
Rangoon, 50 19
Rio de Janeiro, 1
Salonica, 40
Singapore, 15
Smyrna, 50
Stettin. 30
Trinidad, 100
Valencia, 70 4
Venice, 50
Zanzibar, 15

Sodium Chlorate—

Philadelphia, 50 kgs.

Sodium Tartrate—

Havana, 4 cks.

Starch—

Cardinal, 17 cks.
Montreal, 22
Salonica, 20 cs.
St. John's, N'fd., 1

Sulphur—

Boston, 160 t. 1 c. £[illegible]
Jeddah, 3 q. 7
Montreal, 379 8 1,182

Sulphuric Acid—

Maceio, 9 cs. £7

Superphosphates—

Almeria, 6 t. 9 c. 3 q. £22
Gandia, 50 3 125
Genoa. 118 4 246
Las Palmas, 98 128
Lisbon, 49 5 151
Oporto. 50 133
Teneriffe, 8 24
Valencia, 295 8 3 789

Tartaric Acid—

New York, 5 c. £27

Tin Salts—

Piræus, 1 t. 4 c. £110

Varnish—

Barcelona, 12 brls.
Bilbao, 2 cs. 9 dms.
Genoa, 15 pks.
Iquique, 20 dms.
Naples, 3
Oporto 1
Rio de Janeiro, 2 cks. 1
Shanghai 60 60
Valparaiso, 7 24

White Lead—

Bombay, 1,400 dms.
Calcutta, 520 kgs
Penang. 1 ck.

Zinc Chloride—

Baltimore, 17 t. 2 c. 3 q. £251
Piræus, 4 10 79

MANCHESTER.

Week ending November 29th.

Bleaching Powder—

Rio de Janeiro, 12 cs.

Caustic Soda—

Alexandria, 53 dms.
Bahia, 40
Hamburg, 40

Chemicals (*otherwise unmentioned*)

Rotterdam { 4 kgs. / 3 cks

Coal Products (*otherwise under.*)—

Lille, 10 t.rls.

Coal Products—

Aniline Oil
Rotterdam 2 dms.
Aniline Salt
Antwerp, 3 cks.
Carbolic Acid
Antwerp, 25 cks.
Naphtha
Melbourne, 30 dms.
Naphtol Salt
Antwerp, 4 cks.
Pitch
Antwerp, 268 t. 18 c
Marseilles, 777

Copper Sulphate—

Marseilles, 83 cks.

Dried Blood—

Antwerp, 1 cs.

Ferro Manganese—

Antwerp, 25 t.

Gypsum—

Rio de Janeiro, 16 bgs.

Linseed Oil—

Alexandria, 48 brls.

Magnesium Sulphate—

Gothenburg, 40 bgs.

Paint—

Jaffa, 3 brls.

Paraffin Wax—

Rio de Janeiro, 6 cs.

Potassium Bichromate—

Alexandria, 1 kg.

Salammoniac—

Beyrout, 13 cks.

Salt—

Gothenburg, 1,350 bgs

Soap—

Bombay, 7 cs.
Malta, 1

Sodium Bicarbonate—

Alexandria, 30 kgs.

Sodium Naphthionate—

Germany. 15 cks.

ic Acid—
Janeiro, 18 cs.
ria, 6 cks.
ine—
ria, 5 brls.
n Red—
2 cks.
loride—
v, 20 cks.
am, 1

HULL.

ending November 25th.

ium Sulphate—
les, 235 bgs.
484
ng Powder—
200 cks.
Soda—
34 dms.
4 cks.
als *(otherwise undescribed)*
dam, 72 cks. 16 btls.
2 cs.
ania, 9
agen, 80
20 7
burg, 1 10
rg. 40 60
fors, 12
berg, 16
n, 10 pks.
3
14
5
dam, 173 3
3 10
roducts—
sote
olm, 20 cks.
h
rp, 305 t.
2
agen, 2 cks.
seed Oil—
rdam, 26 t. 4 c.
rp, 15 7
agen, 5
rk, 25
5
burg, 2 6
rg, 25 2
sberg, 2 9
illes, 228 6
dam, 149 7
ger, 4 6
, 13 10
olm, 25 2
affs *(otherwise undescribed)*
iania, 6 cks.
antinople, 2 cs.
60 bgs.
Manganese—
bruk, 80 t.
20 bgs.
d Oil—
rp, 3 t. 14 c.
iania, 2 17
iansand, 2 1
antinople, 6 3
hagen, 4
heim, 17
, 1 19
urg, 5 1
illes, 7
ruam, 5 9
e—
rdam, 20 cks.
illes, 790 bgs.
al White—
n, 50 bgs.
ers' Colours—
rdam, 2 cks.
erp, 15 1 cs. 80 pks
39 dms.
n, 10
hagen, 1
irk, 2
heim, 1
, 36 6
, 2 1
nburg, 3
urg, 20 1 1
ngfors, 2 3 4 pks.
rn, 20
s, 48
coping, 2
a, 30
Rotterdam, 20 2 dms.
Stettin, 103
Soap—
Christiania, 100 cs.
Hamburg, 8
Tallow—
Genoa, 30 cks.
Leghorn, 28
Varnish—
Hamburg, 4 cks.
Naples, 1 cs.

GLASGOW.

Week ending November 30th.

Ammonium Sulphate—
Baltimore, 50 t. 16 c.
Barcelona, 10 2 2 q.
Colombo, 10 14 1
Hamburg, 101 5
Madras, 2 10
Mauritius, 393 2 3
Riga, 40 18
Rotterdam, 95 2
Valencia, 208 14 2
Bleaching Powder—
Calcutta, 72 t. 4 c. 2 q.
Boracic Acid—
Melbourne, £253
Caustic Soda—
Barcelona, 4 t. 4 c. 3 q.
Mauritius, 15 12
Chemicals *(otherwise undescribed)*
Lisbon, £116
Rio de Janeiro, £29
Chloride of Lime—
Rio de Janeiro, 6 t. 1 c. 1 q.
Coal Products—
Alizarine
Canada, £31 15s.
Alizarine Oil
Lisbon, £25
Carbolic Acid
Mauritius, £20
Rotterdam, 100
Creosote Salt
Rotterdam, 57 t.
Pitch
Danzig, 101 t. 6 c.
Italy, £24
Madras, 38
Tar
Bergen, £1
Calcutta, 176 10s.
Christiania, 45
Madras, 303
Colours—
Rio de Janeiro, £34
Copper Sulphate—
Barcelona, 1 t. 1 c. 1 q.
Crude Tar Acid—
U.S.A., £270
Dextrine—
Melbourne, £48
Dyestuffs *(otherwise unaescribed)*
Rio de Janeiro, £341
Dyestuffs—
Extract
Canada £287
Portugal, 33 10s.
Fustic
Canada, £43
Sumach Extract
Sweden, £30
Logwood
Canada, £30
Magnesium Sulphate—
Mauritius, £30
Manganese Oxide—
U.S.A., £115
Paint—
Bahia, £47
Bergen, 1 t. 3 c.
Calcutta, 60
Mauritius, 117
Painters' Colours—
U.S.A., £215
Paraffin Wax—
Barcelona, £257
Bordeaux. 170
Christiania, 5 t.
Danzig, 200
Gothenburg, 32
Italy, 41
Riga. 527
Sicily, 75
Spain, 206
Potassium Bichromate—
Barcelona, £228
Bergen, 11
Boston. 347
Christiania, 11 12s.
Lisbon, 25
Montreal. 172
New York, 110
Toronto, 173
Potassium Cyanide—
Adelaide, £294
Melbourne, 1,120
Salt—
Christiania, 5 c.
Sheep Dip—
B. Ayres, £80
M. Video, 56
Soap—
Kingston, 6 t. 13 c. 3 q.
Sodium Bichromate—
Barcelona. 6 t. 14 c. 2 q.
Lisbon, 3 8 1
New York, 7 7 1
Starch—
Rio de Janeiro, £184
Rotterdam, 50
Strontium Nitrate—
U.S.A., £73
Sulphuric Acid—
Pt. Louis, 1 t. 17 c. 2 q.
Superphosphates—
Mauritius, 50 t.
Tallow—
Rotterdam, 4 t. 11 c. 2 q.
Varnish—
Adelaide, £20
Calcutta, 43
Huelva, 24

TYNE.

Week ending November 25th.

Alkali—
Amsterdam, 34 t. 11 c. 2 q.
Copenhagen, 1 14 3
Rotterdam, 10 10 2
Ammonium Muriate—
Gothenburg, 1 t. 15 c. 2 q.
Ammonium Sulphate—
Barcelona, 50 t.
Hamburg, 50 14 c. 3 q.
Antimony—
Barcelona, 3 t.
New York, 30
Barium Binoxide—
Genoa, 17 t. 10 c. 1 q.
Hamburg, 12 15 2
Barium Carbonate—
Antwerp, 19 t. 12 c.
Bleach—
Antwerp, 9 t. 18 c. 3 q.
Bleaching Powder—
Amsterdam, 13 t. 13 c. 1 q.
Antwerp, 24 4 1
Bergen, 10 10
Gothenburg, 30 3
Hamburg, 45 1
Helsingfors, 49 16 3
New York, 67 16 3
Rotterdam, 11 3 3
Bone Grease—
Valencia, 5 t.
Caustic soda—
Antwerp, 19 t. 16 c.
Barcelona, 96 13 3 q.
Bergen, 2 18
Christiania, 2 11
Gothenburg, 9 17 1
Hamburg, 1
Helsingfors, 3 17 1
New York, 77 9 1
Chloride of Lime—
Pomaron, 1 t. 6 c. 3 q.
Coal Products—
Anthracene
Rotterdam. 58 t. 13 c.
Naphtha
Pomaron, 5 t. 13 c. 2 q.
Ferro Manganese—
Bilbao, qty.
Gypsum—
New York, 36 t. 11 c. 1 q.
Linseed Oil—
Genoa, 10 t. 17 c. 2 q.
Litharge—
Christiania, 9 c. 2 q.
Helsingfors, 11 3
Magnesia—
Barcelona, 15 t. 5 c. 1 q.
Manure—
Valencia, 345 t.
Paint—
Antwerp, 8 t. 13 c.
Gothenburg, 9
Hamburg, 2 15
Helsingfors, 17
Rotterdam. 1 10
Painters' Colours—
Hamburg. 1 ck.
Red Lead—
Amsterdam, 1 t. 13 c. 1 q.
Christiania, 5 4 3
Copenhagen, 1 11 3
Genoa, 2 2
Hamburg, 23 15
Helsingfors, 1 8 1
Lisbon, 10 1 3
Salammoniac—
Gothenburg, 1 t. 4 c.
Soda—
Amsterdam, 20 t. 1 c.
Soda Ash—
Gothenburg, 175 t. 1 c. 1 q.
Lisbon, 30 5
New York, 16 2 3
Soda Crystals—
Pomaron. 2 t. 2 c. 3 q.
Rotterdam. 10
Sodium Hyposulphite—
New York. 25 t. 17 c. 1 q.
Sodium Sulphate—
Antwerp, 60 t.
Sulphur—
Christiania, 200 t.
Gothenburg. 50
Superphosphates—
Copenhagen, 185 t. 3 q.
Tallow—
Pomaron, 16 cks. / 2 t. 8 c.
White Lead—
Copenhagen, 2 t. 10 c 2 q.

GOOLE.

Week ending November 22nd.

Caoutchouc—
Antwerp. 1 cs.
Chemicals *(otherwise undescribed)*
Antwerp, 25 cks. 2 dms.
Hamburg, 8 crbys. / 15 cks. 92
Rotterdam. 10
Coal Products *(otherwise undes.)*—
Antwerp, 113 cks.
Boulogne, 12 1 cs. 5 dms.
Hamburg, 9
Rotterdam, 99
Coal Products—
Benzol
Hamburg, 22 dms.
Rotterdam, 28
Pitch
Antwerp, 451 t.
Dyestuffs *(otherwise undescribed)*
Amsterdam, 1 ck.
Hamburg, 1
Dyewood—
Calais, 10 c.
Manure—
Hamburg, 637 bgs.
Painters' Colours—
Boulogne, 21 cks.
Ghent, 2
Rotterdam, 6 cs.

GRIMSBY.

Week ending November 25th.

Alkali—
Dieppe, 5 cks.
Caoutchouc—
Gothenburg, 2 bs. 1 pk.
Malmo 2 1
Coal Products *(otherwise undes.)*—
Antwerp, 5 kgs.
Dieppe, 155 cks. 17 pks.
Hamburg, 8 btls.
Painters' Colours—
Antwerp, 4 cks. / 5 pks. 5 dms.
Rotterdam, 2 kgs. 1 cs.

PRICES CURRENT.

WEDNESDAY, Dec. 6, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may va

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	6/6 & 8/9		
,, Glacial .. .. ,,	35/-		
Arsenic S.G. 2,000° .. .. ,,	1	2	6
Fluoric .. .. per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	1	2
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S.G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2½
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	5	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¾
,, Muriate .. .. per ton	23	10	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/- & 38/-		
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	11	7	6
,, ,, (grey) Hull .. .. ,,	11	6	3
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4¼
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/- to 60/-		
Bleaching Powder, 35 % .. .. nett ,,	6	0	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	10	0
China Clay (at Runcorn) in bulk .. .. ,,	17/- to 25/-		
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 30% A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	9¾
,, 50/90 ,, ... ,,	0	0	10¾
Carbolic Acid (crude 60°) .. .. ,,	0	2	10
,, (crystallised 40°) .. .. .. per lb.	0	0	10½
,, (liquid 95/97%) .. .. .. per gallon	0	1	3
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	11	0
Solvent Naphths, 90% at 160° .. .. per gallon	0	1	4½
Copper .. .. per ton	73	15	0
,, Sulphate .. .. ,,	24	17	6
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	33	10	0
,, (distilled S.G. 1260°) .. .. ,,	51	10	0
Iodine .. .. nett, per oz.	0	7	½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	18	10	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	24	0	0
,, ,, (brown ,,) .. .. ,,	20	0	0
,, Carbonate (white lead) pure .. .. .. ,,	24	0	0
,, *Nitrate* .. .. ,,	25	0	0

	£	s.	
Lime, Acetate (brown) (ex ship) .. .. .. per ton	6	5	
,, ,, (grey) (ex ship) .. .. ,,	9	0	
Magnesium (ribbon and wire) .. .. per oz.	0	2	
,, Chloride (ex ship) .. .. per ton	3	0	
,, Carbonate .. .. per cwt.	1	17	
,, Calcined Magnesia .. .. per ton	13	10	
,, Sulphate (Epsom Salts) .. .. .. per ton	3	5	
Manganese, Sulphate .. .. ,,	14	15	
,, Borate .. .. per cwt.	2	0	
,, Ore, 70% .. .. per ton	3	10	
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	19	10	0
Linseed .. .. ,,	24	0	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	3
,, Carbonate, 90% (ex ship) .. .. .. per ton	18	10	0
,, Chlorate .. .. per lb.	0	0	3
,, Cyanide, 98 % .. .. ,,	0	1	6
,, Hydrate (Caustic Potash) 90 % .. .. per ton	25	0	0
,, ,, ,, 75/80 % .. .. ,,	22	0	0
,, Potash Hydrate Liquid 50 % .. .. ,,	13	10	
,, Nitrate (refined) .. .. ,,	21	5	
,, Permanganate .. .. per cwt.	2	12	
,, Prussiate Yellow .. .. per lb.	0	0	
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	
,, Muriate, 80 % ,, ... ,,	9	0	
Silver (metal) .. .. per oz.	0	2	
Sodium (metal) .. .. per lb.	0	2	
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	
,, ,, (Caustic Soda-ash) 48 % .. ,, ,,	4	5	
,, ,, (Carb. Soda-ash) 48 % .. ,, ,,	4	0	
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,,	4	7	
,, ,, (Soda Crystals) .. .. .. ,, ,,	2	15	
,, Acetate (ex-ship) .. .. ,,	14	0	
,, Arseniate, 45 % .. .. ,,	13	10	
,, Chlorate .. .. per lb.	0	0	
,, Borate (Borax) .. .. nett per ton	16	0	
,, Bichromate .. .. ,, per lb.	0	0	
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	
,, ,, 174 % Caustic Soda) ,, ,, ,,	9	10	
,, ,, (70 % Caustic Soda) ,, ,, ,,	9	0	
,, ,, (60 % Caustic Soda) .. ,, ,,	8	0	
,, ,, (pure liquor 90° Tw.) .. ,, ,,	4	10	
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	
,, Hyposulphite .. .. ,,	6	5	
,, Manganate, 25 % .. .. ,,	15	10	
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	
,, Nitrite, 98 % .. .. per ton	26	0	
,, Phosphate .. .. ,,	10	10	
,, Prussiate .. .. per lb.	0	0	
,, Silicate (glass) .. .. per ton	4	10	
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10	
,, Stannate, 40 % .. .. per cwt.	3	10	
,, Sulphate (Salt-cake) .. .. per ton	1	6	
,, ,, (Glauber's Salts) .. .. .. ,,	1	10	
,, Sulphide (crystals) .. .. ,,	6	10	
,, Sulphite .. .. ,,	5	15	
Strontium Hydrate, 100 % .. .. ,,	9	10	
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	
,, Barium, 95 % .. .. ,,	0	0	
,, Potassium .. .. ,,	0	0	
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	28	0	0
Tin Crystals .. .. per lb.	0	0	10
,, English Ingots .. .. per ton	127	0	0
Zinc (Spelter) .. .. ,,	20	5	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	10	0

THE

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AND

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Advertisements intended or insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

THE CULTIVATION OF SUGAR BEETS.

WITH perennial punctuality we receive at this time of the year the reports of those who are wise enough, and sufficiently devoted to the well-being of the farmer, to persist in their endeavours to bring home to us as a nation, the practicability and advisability of growing our own sugar beets, and then making our own sugar. Mr. Gladstone, we believe, at one time was an ardent advocate of the home cultivation of tobacco, but with little success. Now, for the tobacco plant, tropical conditions, or a climate like that of the Southern States of America, are essential to success. Not so with beets. Although at the outset there were many who looked upon this cultivation as akin to tobacco or tea, Dr. G. Schack-Sommer, Mr. S. Stein, Colonel Milward and others have shown by practical experiments of many years' duration, that not only can the beets be grown here, but that better ones can be produced than can be grown by the Continental farmers who largely live by supplying the raw material for the manufacture of beet sugar. Taking the quantity of sugar in 100 parts of juice, or the average amount in 100 parts of the roots, British-grown beets stand at the head of the list of the 14 other countries producing sugar beets. English-grown roots likewise showed 16·9 tons to the acre without leaves, as against 16·3 last year.

Now that these experiments have demonstrated the foregoing facts so clearly, is it not time some concerted action was taken to operate a refinery, on lines of sufficient magnitude, to demonstrate with equal clearness to what extent, and under what conditions, the manufacture of beet sugar can be successfully conducted in Great Britain?

Many have made inquiries as to the cost of a beet sugar factory, and the capital required, but we would deprecate any individual efforts—or rather we should say isolated efforts—in this direction, because they will not be trustworthy guides for future developments, and will also tend to court failure, as was the case some years back, when the supplies of beets were greatly restricted as compared with the present.

A factory in a suitable district, planned and capitalised under the co-operation of several of the individuals who contemplate steps in this direction, would seem to be within the range of practical politics, and would, we think, prove a success. Our reason for urging the starting of a sufficiently extensive and representative factory is this: The consumption of sugar in Great Britain and Ireland is over 1,500,000 *tons* per annum. To produce this quantity of sugar at home, we should require 400 factories, and the aid of 160,000 work-people, while the value of the sugar so produced would be £15,000,000. This being so, we do not think it fair to estimate the future of this manufacture as a home industry, by a trial-factory that is not large enough to fairly test our capabilities, and the possibilities of the case; no matter how commendable the intentions of the small endeavourers may be.

Surely, also, there is room for an ample trial-factory—say one to work up 200 tons of beets per diem—without making any appreciable difference to our present foreign suppliers? Are we to be denied such a trial because of political differences, and the nice distinctions of economists, who cannot agree concerning possible (and often improbable) international developments?

Strange to say, the Royal Agricultural Society of England, who are better fitted than almost any other body to co-ordinate proposals and inaugurate some conjoint scheme, seem to see the least possible chance of benefit to farmers, and are not only hopelessly apathetic, but even mildly deprecatory in their attitude. Apathy seems to be the chronic complaint, and the curse of the farming fraternity. We do not suggest for a moment that beet-root cultivation is a panacea for their ills, but it does promise to be distinctly palliative, and there will have to be a certain amount of give and take.

Embrocation is good for bruises, but it requires some effort and determination to face the "rubbing in," which is sometimes very painful. Goodness knows, the farmers are badly enough bruised, but the beet-root embrocation has a good reputation. Is it not worth a trial?

LYDDITE.

THE treatise on Service Explosives for 1895, contains the following sentence:—"Lyddite, which has been largely used experimentally as a bursting charge for shells, is simply picric acid brought into a dense state by fusion"

As a matter of fact, the Boers have now found that it is no longer used experimentally. The shells are coated inside with a special varnish, and the melted picric acid is cast into them. As this requires a strong detonator, or a very powerful primer, the Government has adopted a primer of picrate powder, which consists of a mixture of two parts of ammonium picrate to three parts of saltpetre, manufactured in much the same way as ordinary granulated gunpowder. This is then set off by the ordinary service fuse.

The name "Lyddite" is taken from the town of Lydd, not because it was first made there, as is erroneously stated, but on account of the first experiments having been conducted in that place.

The French "Melinite" was originally picric acid, embedded in a collodion solution, and later on also fused picric acid. They now use a mixture of fused picric acid and cresylic acid. Although picric acid was used as an explosive in the pulverulent state, mixed with saltpetre and other ingredients, yet the property of detonating with great violence when melted, was first indicated by Dr. Herman Sprengel, and afterwards patented by Eugéne Turpin, of Paris.

Sprengel did not succeed in getting his idea properly tried by the authorities, while Turpin's patent was first declined by the French Government, and afterwards quietly appropriated. When, later on, Turpin negotiated with Armstrong's, and got them to take it up, he was hauled before the French Courts on a charge of high treason, and sentenced to three years' imprisonment, *pour encourager les autres.*

THE SACCHARIN CASE.—In the Chancery Division of the High Court of Justice this week Mr. Justice North delivered judgment for the plaintiffs in the case of the Saccharin Corporation *v.* the Chemicals and Drugs Corporation, which was an action to restrain infringement of a patent involving highly technical chemical evidence. The patent on which the plaintiff sued related to the production of a substance called ortho toluene, used in the manufacture of saccharin. Infringement was admitted; the validity of the patent was contested on the ground of want of subject matter. The plaintiffs' process of obtaining ortho toluene is by treating toluene with chlor-sulphuric acid. The defendants set up certain scientific papers in which descriptions of methods of producing ortho toluene by treating toluene with chlor-sulphuric acid were described. The plaintiffs contended that by the process so described the substance required could not be manufactured commercially, that by using an excess of acid and keeping the temperature of the mixture sufficiently low in the manner described in their specification, requirements not previously known, they were able to produce the substance they made at a remunerative cost. The action was tried some time since.

Correspondence.

**** We do not hold ourselves responsible for the opinions expressed by our correspondents.*

PLURALISTS IN CHEMICAL APPOINTMENTS.

(To the Editor of the Chemical Trade Journal).

SIR,—"Chemist" makes a comparison between the church-pluralist and the pluralist of the laboratory; unfortunately the comparison breaks down in the most essential quality of payment, for while the former receives enough to make life worth living, the latter receives so little that his many appointments only bring in enough to keep him and his family from starving The chemist is inadequately paid; this fact is continually obtruding itself on one's notice. The other week, for example, only £350. per annum was offered for the post of chemist to an important northern Corporation, where the gas manager is probably receiving three times the amount. The London County Council gives twice the amount to its chemist, yet there are enlightened members of that body who regard the remuneration as miserable when the nature of the duties of investigator and adviser in large schemes are taken into account. This want of public recognition of the chemist is, no doubt, largely due to the newness of the profession, and also in some measure to the Food and Drugs Acts, which created public analysts, stipulating that their fees should be only half-a-guinea per sample. Nor are matters mended by the unprofessional habit of some analysts charging a round guinea for analyses irrespective of the time and labour they have to give to them. I hold that men are not true to themselves who put in a couple of days' work for one day's pay. These are some of the matters which lie at the root of "Chemist's" complaints for if professional chemists were paid reasonably well and *pro rata* for the time given to their work, there would not be the necessity for one man to hold so many appointments.—I am, etc.,

WM. ACKROYD.

Halifax, Dec. 9, 1899.

THE CALICO-PRINTERS' COMBINE.

THE prospectus of the Calico-Printers' Association, Limited, has been issued this week. The Association has been formed primarily for the purpose of acquiring and amalgamating various companies and firms engaged in the calico-printing industry. The prospectus states:—"The businesses acquired comprise about 85 per cent. of the calico-printing industry in Great Britain. The strength of the Association is shown by the fact that it includes nearly every leading house of the trade, and that these supply goods not only to all branches of the home trade, but practically to every open market of the world. The businesses also deal with all sections of the trade, and include the production of every description of printed cotton, dress goods, furnitures, cretonnes, linings, flannelettes, and also of delaines and mixed fabrics. In addition, some of the businesses own large spinning and weaving plants. The purchases include the copyright of the whole of the registered designs of the vendors, representing the accumulated experience and skill of many years. The possession of these assures to the association the widest powers of control, and the means of efficiently safeguarding their customers' interests in the future" The directors express their belief that amalgamation of interests, and definite community of action, promise the following advantages: The avoidance of undue or excessive competition, and of the selling of goods below cost; large economies to be effected by the centralisation of buying and finance, and concentration of production; the prevention of overlapping upon the part of the firms constituting the Association. The share capital of the Association is £6,000,000., in shares of £1 each, and there is, in addition, £3,200,000 four per cent. first mortgage debenture stock The present issue consists of the debenture stock and 5,000,000 shares of this issue: £1,066,666. debenture stock and £1,595,170 ordinary shares will be issued to the vendors in part payment of purchase moneys, and the remainder—viz., £2,133,334 debenture stock and £3,404,830. ordinary shares—are now offered for public subscription at par. The purchase prices for the properties and assets acquired amount to the aggregate sum of £8,047,031.

THE MANCHESTER SEWAGE PROBLEM.—A deputation from the Rivers Committee of the Manchester Corporation waited upon the Mersey and Irwell Joint Committee this week for the purpose of discussing the present position of the Manchester sewage disposal question. The deputation consisted of Sir Bosdin Leech (chairman), Dr. Dreyfus (deputy chairman), and Councillor Johnston, and they were accompanied by Mr. Alderman M'Dougall, Mr. W. H. Talbot (town clerk), Mr. Gilbert Fowler (the Committee's chemist), and Mr. Walters (secretary). The interview lasted about half an hour. We understand that no decision of a definite character was arrived at.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Apparatus for the Concentration and Crystallisation of Saccharine Liquids. J. and C. McNeil. 23,598. November 27.

Regeneration of Carbonate of Baryta resulting from the Manufacture of Oxygenated Water. B. J. B. Mills. 23,611. November 27.

Obtaining Ferric Sulphate and Metal Sulphates from Iron Pyrites and other Sulphide Ores. O. Meurer. 23,664. November 27.

Recovery of Tin from Tin Scrap. T. Twynam 23,678. November 28.

Lead Plates for Secondary Batteries. M. Wuillot. 23,728. November 28.

Electrolytic Apparatus. J. D. Darling and C. I. Harrison. 23,753. Nov. 28.

Manufacture of Sulphates and Metallic Oxides. J. Hargreaves. 63,783. November 29.

Manufacturing Carbons for Electrical, and Electro-chemical, and other Purposes. E. Pohl. 23,830. November 29.

Improvements in the Preparation of Soaps. J. F. Phillips. 23,842. November 29.

Making Naphtha Shale Spirit, Petrol Spirits, etc., Uninflammable. G. Schumacher. 23,851. November 30.

Mixtures of Carbide of Calcium which are Free from any Danger of Explosion in Generating Gas. F. L. Toby and O. S. Borch. 23,874. November 30.

Treatment of Telluride Ores. C. J. Head and R. C. Wild. 23,911. Nov. 30.

Anti-rust and Lubricant Composition. J. R. E. Warren. 23,927. Dec. 1.

Chemical Fire Engines. J. C. Merryweather and C. Y. W. Jakeman. 23,947. December 1.

Improvements in Drying Apparatus. C Dansard. 23,948. December 1.

Manufacture of Blood Products for Fertilising and other Purposes. A. J. Boult. 23,970. December 1.

Improvements in the Treatment of Sewage. J. C. Thresh. 23,971. December 1.

Solidification of Liquid Mineral Oils. H. B. Helbing and F. W. Passmore. 23,978. December 1.

Solidification of Liquid Mineral Oils. H. B. Helbing and F. W. Passmore. 23,979. December 1.

Improvements in Glue Applying Machines. U. G. Charles. 23,982. December 1.

Producing Alkali Cyanides and Ferro-cyanides. J. Grossmann. 24,011. December 2

Apparatus for Concentrating, Distilling, or Elevating Liquids. P. Kestner. 24,024. December 2

Manufacture of Artificial Fuel. E. Springborn. 24,055. December 2.

Carrying off the Gases Generated in Electrolytic Apparatus. W. Bein. 24,058. December 2.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improvements in Roasting Furnaces, more especially intended for Roasting Pyrites or the like, for the Direct Production of Sulphuric Anhydride from the Gases Evolved. G. W. Johnson, 47, Lincoln's Inn Fields (communicated by Verein Chem. Fab., Mannheim). Eng. Pat. 1,859. January 26, 1899.

The method of constructing the furnace is illustrated by five figures. It is so formed that hot air, previously dried by means of concentrated vitriol, can be supplied to the furnace, either at the top or the bottom. After effecting the combustion of the pyrites, the gases formed are led away to the contact material, which converts the sulphur dioxide into trioxide. The entrance of undried air is prevented as far as possible by providing means whereby the apertures in the furnace may be closed air-tightly.

Improvements in Apparatus for Use in Drying White Lead. H. C. Webster and T. French, both of 36/48, McAlpine-street, Glasgow. Eng. Pat. 26,434. December 14, 1898.

The drying chamber is heated with pipes at the bottom, and fitted with tiers of rails, carrying small bogies or trucks, charged with the wet white lead, which are introduced through small sliding doors at the front of the drying chamber. In front of these doors is a movable platform or elevator, fitted with turntables, and at one end is a siding on which the trucks are brought under the feed hopper. When the lead is dry, the trucks are removed and raised by a separate elevator to a compartment on the top of the drying chamber, through which the trucks are run on to tipping-tables, which overhang the side of the drying chamber, and so their contents are discharged into bins These bins are connected with an exhauster, which carries away any dust formed. There are three figures.

Improved Process and Apparatus for Condensing Arsenious Acid, Metallic Fumes, and the like. W. P. Thompson, 322, High Holborn, W.C. (communicated by A. Froment, Travagnaceo, Turin, Italy). Eng Pat. 7,357. April 7, 1899.

The fumes to be treated are passed through filtering chambers into a horizontal jacketed tube, in which is a hollow spiral conveyor working on a hollow axle. The fumes, etc., are completely condensed on these surfaces, cold water circulating through the jacket, spiral, and axle. The condensed products are carried forward by the conveyor into a discharging hopper, while the gases are passed through a superheater into a Glover tower, or otherwise disposed of. The spiral conveyor is driven by the cooling water which impinges on a water wheel coupled to the end of the hollow axle. There are two figures.

Process for the Separation of Metacresol and Paracresol. Dr. F. Raschig, Ludwigshafen a/Rhine. Eng. Pat. 18,334. September 11, 1899.

Two methods of separation are described. In the first the mixture of cresols is treated with vitriol at 100° C., and left for a week, when crystals of paracresol-sulphonic acid separate. These are removed from the liquid portion by a centrifugal, and decomposed with steam in the usual way. The liquid portion is also treated in the same way. In the second process the cresols are converted into sulphonic acids, and sufficient anhydrous sulphate of soda is added to convert the para-acid into paracresol-sulphonate, which can be separated, regenerating the cresols with steam. When the production of trinitro-meta-cresol is aimed at, the separation of the para-product reduces the quantity of nitric acid required for nitration by 50 per cent.

Improvements in the Manufacture of Salts of the Oxy-halogen Acids, such as Chlorates, Hypochlorites, and the like. P. Imhoff and the United Alkali Company, Ltd., both of 30, James-street, Liverpool. Eng Pat 1,017. January 16, 1899.

The electrolyte may consist of potassium chloride, or alkaline earth chloride, together with magnesium chloride. To it is added phosphate of potassium (or sodium), or the oxides of bodies capable of a basic or acid reaction, such as the oxides of aluminium, boron, or silicon. The particular oxide used (say Al_2O_3) is continually being absorbed by the caustic alkali resulting from the electrolysis of the electrolyte; then again decomposed by the chlorine at the anode into $KClO$ and Al_2O_3, so that very little need be added.

IMPORTS AND EXPORTS FOR NOVEMBER.

THE Board of Trade returns for the last month are very encouraging. The *imports* show increases in tallow, gutta percha, and manures (except nitrate of soda and guano), paraffin and rosin. The *exports* of chemicals, including alkali, bleach, soap, chemical manures and seed oils, are all higher in quantity and values, excepting salt.

IMPORTS OF FOREIGN AND COLONIAL PRODUCE

ARTICLES.		Quantities. 1898.	Quantities. 1899.
Margarine	Cwt.	78,021	90,938
Copper Ore and Regulus	Tons	13,687	22,159
Pyrites	,,	52,548	64,019
Tin	Cwt.	25,827	40,300
Alkali	,,	26,425	24,968
Brimstone	,,	33,851	41,593
Dyes, coal tar	£.	68,164	66,862
Saltpetre	Cwt.	21,642	22,824
Petroleum	Gall.	15,143,472	18,789,237
Turpentine	Cwt.	12,012	60,919
Guano	Tons.	2,795	1,001
Nitrate of Soda	,,	8,369	7,906
Paraffin Wax	Cwt.	74,674	95,170
Rosin	,,	63,878	149,397
Tallow and Stearine	,,	139,585	249,885
Tar	Barrels	4,232	2,420
Oil Seed Cake	Tons	33,649	38,565
Wood Pulp	,,	40,134	30,266
Borax	Cwt.	305	9,645

EXPORTS OF BRITISH AND IRISH MANUFACTURES.

ARTICLES.		Quantities. 1898.	Quantities. 1899.
Alkali	Cwt.	331,381	404,661
Cement	Tons.	25,008	38,074
Coal and Coke	,,	3,453,216	3,511,483
Copper, all kinds	Cwt.	105,305	70,685
Iron and Steel	Tons.	252,537	345,638
Chemical Manures	,,	30,726	35,066
Oils, seed	,,	3,679	4,293
Salt	,,	40,385	34,815

Reports of Companies.

INDIA-RUBBER, GUTTA-PERCHA, AND TELEGRAPH WORKS COMPANY, LTD.

The report for the nine months ended September 30 states that after providing for doubtful debts the nett profit amounted to £43 616. Adding £25.395 brought forward, and deducting £12 500. interim dividend paid in July, there remains a disposable balance of £56,511. The directors recommend a dividend of 10s. a share, free of tax, making with the interim dividend a total payment at the rate of 10 per cent. per annum, leaving £31,511. to be carried forward.

WEARDALE LEAD COMPANY.

The report of the directors for the year ended June 30 last states that the accounts show a profit of £664. on the year's working, exclusive of rent and royalty; 1,939 tons of ore have been raised, and 1,910 tons dressed during the year; 1,908 tons of ore have been smelted, and the yield from the mill has been 1,535 tons 11 cwt. 1 qr. 25 lb. of pig-lead. The sales of pig-lead totalled 1,535 tons 11 cwt., which realised £20,266, or an average of £13. 4s. per ton net, delivered at Park Head, and £3,610. has been expended during the year on shafts, levels, compressed air, and other machinery, pumps, drills, surface improvements, etc, which has been charged to capital. From the reports of the manager it will be seen that, with the exception of Boltsburn, notwithstanding the large amount of dead work, very little ore has been produced from the mines. The directors, therefore, determined to suspend operations at Groverake, Sedling, and Killhope, except the raising of ore on tribute, and to concentrate the work on Boltsburn. As this mine has been producing good ore for some time past from the flats in the Great Lime, they ordered, and have erected, new machinery and air-compressing plant for the more effective development of this mine at a greater depth, and at the same time have made improvements at the main shaft to facilitate the raising of ore to the surface. These are all now completed, and, in consequence, the mine is giving most satisfactory results. The manager expects, when the new shaft below Watt's Level is sunk through the Great Lime, and levels run east and west, to be able to employ double the number of miners, and to largely increase the output. At Green Laws and Craig's Level development work is being continued. The directors have for some time been in negotiation with the Ecclesiastical Commissioners with reference to a modification of the rent and royalty, and they hope shortly to be able to acquaint the shareholders that a satisfactory and reasonable settlement has been arrived at. With the increased price of lead and the better condition of Boltsburn Mine, the general position of the company is greatly improved, and the directors consider the future prospects to be now satisfactory.

THOMAS WEBB & SONS.

The report of the directors of this company on the operation of their Dennis Glassworks, Stourbridge, is as follows:—"The certified accounts for the year ended September 30th, 1899, are submitted herewith, and, while the result of the Melbourne trading has been satisfactory, your directors regret to state that it has been counterbalanced by the disappointing result of the English trade. The aggregate nett profits amount to £24. 19s. 6d. only for the year, after absorbing the £3,231. 0s. 5d. earned in Melbourne. There is in addition to this the balance of £241. 5s. 6d., giving an available sum of £266 5s., which your directors propose to carry forward to next year. The adverse result of the Stourbridge trading has occasioned your directors serious anxiety, and has forced them to the conclusion that the management requires strengthening. Owing to ill-health, Mr. Walter W. Webb is retiring from active management, but will retain a seat on the Board. Owing to increasing years Mr. Charles Webb is also desirous of being relieved to some extent from the strain and responsibility of the management. Under these circumstances the directors have approached Mr. Congreve Jackson, who has ably represented the company in London, and who has an intimate knowledge of the glass trade generally, and more particularly of the company's manufacture. He has been connected with the concern for twenty years, and is well known alike to the customers and employés of the company. Your directors are pleased to say that he has consented to take the position of managing director at Dennis, and that they have appointed him to that office subject to confirmation by the shareholders. Mr. Charles Webb will remain as managing director in a consultative capacity. Mr. Joseph Hinks has felt compelled by pressure of other engagements to retire from the Board, his seat being taken by Mr. Walter W. Webb, subject to confirmation by the shareholders. Mr. Rupert T. Smith retires from the Board by rotation, but, being eligible, offers himself for re-election. The auditors—Messrs. Sharp, Parsons, and Co.—also retire, but are eligible for re-election."

LAGUNAS SYNDICATE, LIMITED.

The fourth annual ordinary general meeting of the Lagunas Syndicate, Limited, was held on Monday, at Winchester House, Old Broad-street, E.C., Mr. Robert Harvey (the chairman of the company) presiding.

The Chairman said: Before I proceed to the business of the meeting, I must, on behalf of the directors, express our deepest regret at the loss we have sustained by the decease of our esteemed colleague, Mr. George Fleming. He was a careful and painstaking director, and spared himself neither time nor trouble in protecting and enhancing the interests of the shareholders of this company. The loss to you, as shareholders, is as great as it is to us, although probably you cannot appreciate it as much as we, his colleagues, do, as we for some years have enjoyed the privilege and the pleasure of his friendship and acquaintance. It will be a long time before we shall forget the genial presence of Mr. Fleming on the board, and we shall all miss his active and kind co-operation and services. With reference to the balance-sheet and report now before you, which I presume you will take as read, I hope and believe that you will, with the directors, consider the results under the circumstances as eminently satisfactory. The prices of nitrate during the year under review have ruled exceedingly low; yet, notwithstanding that fact, we have succeeded in making the fair remuneration of £66,490. gross profit, representing about 8d. per quintal on every quintal sold, or 33 per cent. in excess of the profit that we made last year. In view of the very low prices ruling, I am sure you will consider that a very satisfactory result, and I think I may say that such a result per quintal is almost a unique one during the past year's trade, and speaks volumes for the excellence of our grounds, for the capacity of the machinery, and for the good management of the works. With respect to the items in the balance-sheet, although they appear exceedingly explicit, and it may be a work of supererogation to pass any remarks on them, yet for the benefit of those who have not studied the items particularly, I may make a few remarks. You will see one item in the account of loans against nitrate, £27,210., which may seem excessive to those who are not conversant with the details of the nitrate manufacture, but that is an amount advanced for nitrate in stock, on the sea, and in port on June 30 last, and that has since been paid off, and disappeared from the accounts. With respect to the item of sundry creditors, £22,726., we may say that this is partly in Chili for duties, and partly here for coals, dock, and railway freights on nitrate which had not been paid, and that item at present has also disappeared. With respect to the debentures drawn, that money is in the bank. You will see the sum of £1,312. charged for three months' interest to June 30; that is simply a matter of figures, and will disappear in the next year's accounts. With respect to the stock, I may say that we are well within the mark. We have loose plant, animals, carts, harness, tools, house and office furniture, £11,213., and as 20 per cent. has been written off the last year's value of the stocks, there is an ample margin for any natural depreciation which could have occurred to them. We have also written off a considerable amount to the Pulperia stock. With respect to the nitrate and iodine stocks, they are shown at the cost price of those materials.

PRODUCTION.

We have worked during the year eleven months in North Lagunas, and about nine months in South Lagunas; but we worked slowly in both places, and did not force the production, as we find a moderate rate is more consistent with good economy than forcing the production. We made a little over 2,000,000 quintals of nitrate; we could increase this up to about 3,000,000 quintals should the price justify our forcing the machinery, but at present we have no intention of increasing the ratio of manufacture. You will also see an item of Difference in exchange—a loss of £6,680. That is the amount written off for depreciation between the value of the dollar at 17d. and 15d., at which it stood on June 30 last. On several occasions I have explained to you the *modus operandi* which the directors adopt of writing off this exchange, and have told you, as I do now, that it is simply a matter of figures. Really it is not lost, because that which is in stock is at the same value at June 30 as on June 30 the year before, and the loss is only on the amount of dollars, the amount of cash which existed in the works at the time of making up the accounts. As the stock of cash is so very small, only some $2,000., the actual loss is a matter of very small proportion.

With respect to

THE DIVIDEND

recommended, I am sure you will feel satisfied with the result, but I may say that the directors have received communications from two or three shareholders, rather objecting to their action in recommending a dividend now, in view of the possible liability which they may have on the termination of the present litigation. They consider it wiser to keep the £33,000., which we now propose to distribute to you for any eventualities we may be called upon to meet; but those gentlemen who write in that strain are, without doubt, actuated by the most prudent motives. There is no reason for this, however, at the present moment, when we are doing so well.

THE POSITION OF NITRATE.

During the five months from June 30 we have sold 700,000 quintals of nitrate, on which we have made over £25,000. profit. We therefore feel justified in dividing this amount amongst you, as we have at present at our disposal ample funds to meet any eventualities that we may be called upon to face. With respect to the statistical position of nitrate generally, I may say that I think we are in a somewhat better position than we were last year at this time; yet, at the same time, the outlook is not excessively bright. It looks as if the present year will give a profit equal to, and probably in excess of, the past, but, at the same time, not the profit I should like to make from our works. There have been strenuous efforts made to form a combination for the limitation of the output, and Mr. Herman Schmidt, the ex-president of the Permanent Nitrate Committee, has been in Iquique almost a year, trying hard to conciliate the various conflicting interests of the nitrate makers, in order to bring about a combination; but his efforts have met with very small success, and all our attempts here have proved abortive.

A COMBINE IMPOSSIBLE.

I regret to say that Mr. Schmidt has given the matter up, and is returning to England, finding it impossible at the present time to make a combination, as the prices which makers are deriving now place them in funds, which make them to a certain extent independent of limiting their production by any ordinary means. The most hopeful feature at present and in the near future is the marked progress which consumption is making towards overtaking production. The deliveries in Europe for the eleven months ended November 30 last have been 1,098,000 tons, as against 997 000 tons in the same period of 1898, showing an increase of upwards of 100,000 tons. In the United States and other countries outside Europe, the deliveries to October 30 have been 147,000 tons in 1899, as against 126,000 tons in 1898. The visible supply for Europe at December 1 was 654,330 tons this year, as against 597,380 tons at the corresponding date in 1898. It is believed that the increase of 57,000 tons is not more than a set-off against prospective increase of consumption. In 1898 the whole production was 29,000,000 quintals, and the world's consumption 26,500,000 quintals. In 1899, the production is calculated to be 30,000,000 quintals, and the world's consumption 28,000,000 quintals; consequently, the manufacture, although increased slightly, has not increased so fast as the consumption. When once the consumption comes to an equality with the production, we shall be able to look forward to a much higher price for our staple. Gentlemen, I think that is satisfactory, as far as it goes. It might have been much better; but, still, we have reason to congratulate ourselves that it is no worse. With respect to the lawsuit, I can only confirm the remark in the report, and it must be obvious to you that any further discussion on this suit, while *sub judice*, is at present inadvisable. Our staff on the coast, and our agents, have been most painstaking and industrious in endeavouring to secure the best prices for our products, and have succeeded in limiting the cost of manufacture to a very reasonable amount. Our secretary and staff here are all that we could desire, and I think, all things considered, we have every reason to congratulate ourselves on our moderate prosperity. With respect to the dividend recommended, I may say that the warrants will be posted in good time, and will be payable on the 15th of the month. I shall be very pleased to reply to any questions which may be put, and will propose: "That the balance-sheet and accounts be received and adopted, and that a dividend of 3s. per share, free of income-tax, be payable on the 15th inst."

Mr. E. Edmondson seconded the resolution, which was carried unanimously.

PERUVIAN CORPORATION, LTD.

The report of the directors of the Peruvian Corporation, Limited, states that the accounts for the year ended June 30 show a profit, after deducting the reduced debenture interest and charges, of £61,754, which, added to the balance of £61,052. brought forward from the previous year, and deducting £2.801. written off on colonisation account, leaves a balance of £120,005. at the credit of net revenue account. The above balance of £120,005. is not wholly available in cash, a considerable portion of the revenue earnings having been absorbed by capital expenditure on the railways and otherwise, in the absence of working capital. The question having been raised whether any part of the available surplus earnings could be applied in increasing the rate of interest on the debentures prior to the date at which the increased rate becomes payable, the board submitting a case to Mr. Swinfen Eady, Q.C., who advised that this course could not legally be adopted. In view of the fact that payment of the debenture interest at the increased rate of 4 per cent. will have to be made on October 1, 1901, and having regard to the expediency of making provision for the improvement of the railways, the board have determined to place the sum of £30,000. to reserve, in accordance with and for the purposes specified in the articles. The gross receipts from the railways and lake and river navigation during the past year show an increase 203,599 dollars, as compared with the preceding financial year; but there was an increase of 95,752 dollars in the working expenses, so that the net result is an increase of 108,247 dollars. The gross receipts in sterling of the railways and steamers were £350,996., the working expenses £226 534, and the net receipts £124,462, the last figure comparing with £113,098, in 1897-98.

The position of the colony has not materially changed since the date of the last report, and the directors have only to remark upon the fact that the continuance of the depression in the market for coffee during the past year has operated to the prejudice both of the colonists and of the corporation. Some of the colonists have in consequence been obliged to relinquish their holdings, which in some cases have been transferred to other colonists, and in other cases have been taken over by the corporation. A sum of £2,801. has been written off net revenue in respect of debts irrecoverable from colonists, and in respect of buildings, roads, etc. The net income from

GUANO

during the past financial year amounted to £67,749., against £35 146. in the preceding year. This satisfactory increase in the guano revenue arises mainly from the fact that the guano shipped from one of the deposits turned out to be of a higher grade, and partly from the improved conditions of the freight for fertilisers, which enabled the directors to obtain higher prices per unit of nitrogen and phosphoric acid. The rates of freight of the cargoes shipped during the past year averaged about 4s. per ton in excess of those of the proceding year.

The position of questions between the Corporation and the Peruvian Government as regards the Cerro de Pasco Mines has not been altered since the date of the directors' last report. The improvement in the price of

COPPER

has led to a very considerable increase in the output of copper ore from the Cerro de Pasco district. The present output is nearly 2,000 tons per month, and there are enormous stocks of ore accumulated at the Cerro, and remaining there for want of transport. Efforts are being made by persons interested in the exploitation of the copper mines to arrange for the construction of a railway from Oroya, the present terminus of the Central Railway, to Cerro de Pasco; and there seems every reason to believe that such an improved means of transport would tend largely to increase the output of ore. This would increase the traffic of the Central Railway.

SOME NEW ALLOYS.

At the last meeting of the Birmingham Scientific Society, held at the Midland Institute, under the presidency of Mr. Bayley Marshall, an address on "The Properties of Some Alloys" was delivered by Mr. Alexander E. Tucker. At the outset he pointed out instances of change in alloys due to external action and internal causes, and described a nickel aluminium alloy containing some 4% of nickel, which in a few hours after being cast fell to powder at ordinary temperatures—an extraordinary result when the toughness and malleability of the separate metals was regarded. The effect of bismuth on copper and brass was also referred to, and he said that the matter might be summed up in a general statement that, given the properties of a definite alloy, the effects of introducing even a trace of a foreign substance into it could not be foretold by any reasoning from analogy. The past masters of metallurgical art, the Japanese, had only reached their skill by generations of intelligent plodding, and often baffled us with all our science in the discovery of their methods. He alluded to the application of metallic aluminium as a means of producing the rarer metals in a pure form, which process he said seemed likely to replace the more complex apparatus of the electric furnace; and then spoke of the steel that had recently been produced by melting hematite pig with steel scrap, and adding to the natural hardness of the mixture so obtained by a judicious addition of manganese tungsten alloy, the solidity of the ingots being ensured by adding aluminium nickel. The steel produced by that method did not lose its hardness by heating during use, and was said to be equal to that of ordinary "self-hardening" steel. In conclusion, he said that he had endeavoured to show some glimpses of the practical results which had already been obtained by the intelligent study of the properties, and also of the vagaries, of metal in combination. It would be apparent from those considerations, bearing in mind the number of metals at present at their practical disposal, that an infinite field of research was open, and one in which the reward to the worker was great. (Applause.) A number of specimens were on view, including molybdenum nickel and ferro phosphorus. An interesting discussion followed, and subsequently a hearty vote of thanks was passed to Mr. Tucker for his address.

SULPHUR IN JAPAN.

It is stated on reliable authority that an American syndicate is being formed to investigate the possibilities of extended operations in the Japanese sulphur mines. Yezo, or Hokkaido, the most northern of the four chief islands, and the chain of small volcanic islands known as the Kuriles or Smoky Islands, extending thence to Saghalien, are well known as being rich in this substance, and likely to prove formidable competitors with Sicily. There are also many minor deposits scattered over the country generally. One which was visited some time since may be taken as typical of many others. Shirane-san, or the White Mountain—there are several other mountains bearing the same name—can be easily visited from Kusatsu, the most celebrated hot springs in Japan, which are annually visited by thousands suffering from rheumatism, gout, &c, for the cure of which it is found extraordinarily efficacious. Although 7,500ft. above sea level, it is not an imposing mountain, as the crater, which forms the summit, only rises slightly above a sloping plateau of considerable extent, covered with "a skeleton forest, whose every bough and twig though perfect in shape, remains blasted by the fumes exhaled during the eruption of 1882." It is also covered with huge rocks projected by the same and previous eruptions. Immediately outside the crater were the refining works, where the sulphur was roughly refined and cast into blocks which were transported by pack horses. From the refinery a tramway led through a cutting in the wall of the crater into the interior at about the same level, which contained a lake of dilute hydrochloric acid. This formerly occupied nearly the whole of the crater, about 500 by 200 yards, but had been partially drained off by tunnels through the crater walls, until it occupied an area of about 250 by 100 yards. Skirting this, the tramway brought us at the far end, to a black seething caldron of perhaps 20 by 30 yards, as far as could be judged through the clouds of surphurous steam, the mud and sand from the edges of which were being rapidly shovelled into tramcars and carried off, and as rapidly replaced from the nether regions. Round the rim of this caldron were eight or ten blow-holes, belching forth jets of steam, and building up round each a pipe of almost pure sulphur deposit, just like so many yellow chimney pots. Of course, these were broken off and carried away as fast as they were formed.

One who has visited this district says: I found some difficulty in reconciling my own impressions with the accounts of previous visitors, but this difficulty was explained by a violent eruption from the same caldron in 1897, which smothered the whole establishment, refinery, and workmen's houses under a shower of falling rocks, and scattered over a mile or more in every direction. Fortunately no lives were lost, but the enterprise, like many others of a similar nature, has been abandoned, at all events for the present. I may add that I have compared the accounts given by some half a dozen persons who have visited the spot during the last fifteen years, and no two of them agree as to the minor details, which is perhaps scarcely to be wondered at, as the circumstances are constantly changing.

THE BEST FOUNDATION FOR TECHNICAL EDUCATION.

Those men who with fair abilities have received a really good education, have been taught to use their minds, and who, by contact with other students, have acquired habits of application, amply make up for their late start by the power of mind and grip that they bring to their work. According to Sir Andrew Noble they are fresh and keen when others who have been hammering away at semi-technical work from early boyhood have become stale and are less vigorous; and that reflection moves me to deprecate strongly any attempt to teach seriously practical or electrical engineering in preparatory or elementary schools. As an excellent recreation such studies are, no doubt, to be encouraged; but to make them a systematic part of education, to the exclusion of studies which have a more direct effect in developing the understanding, seems to me to be entirely wrong. I would go further, and say that even in public schools, and their equivalents for older boys, what are termed engineering shops, are generally a failure so far as any efficient knowledge to be gained in them is concerned. Except as a reasonable diversion for recreation hours, such "shops" have, I fear, but little value, and in nine cases out of ten the hours spent in them are subtracted from the time due to more valuable studies. In my judgment the age at which a boy should seriously begin any special studies with a view to fit him technically for the profession he may have decided to follow, should not be earlier than seventeen or eighteen. And in any discussion as to the age at which a boy should leave school, the great incidental advantages that he gains from a reasonable prolongation of his school days, must never be lost sight of. A stricter discipline, a wiser supervision, a more authoritative, yet systematic advice as to conduct, are more possible at school than can ever be the case in after-life, and a more constant and generous association with his equals rubs off angularities and leads to amenity of disposition. It is seldom, indeed, that one cannot trace the difference between a lad who has had a full public school training, and another who has been less fortunate. Speaking as an employer of labour, I should say that we find a pleasant speech and manner, tact in dealing with others, and some power of organisation of the utmost value, and it is precisely those qualities which a boy acquires or ought to acquire in his later years at a public school. Without such qualities even the highest scientific attainments will never make a captain of industry, and in selecting candidates for appointments, the man of business distinctly prefers a youth who has had the benefit of some years at a good school. So much for the necessity of grounding technical studies on the basis of a sound general education.

COMBINED BLAST-FURNACE AND MARTIN PROCESS.

Since the introduction of the basic method, the Martin process has, especially on the Continent, gained more and more ground, even in districts where conditions would appear to be favourable to the converter treatment. So far the Martin process is, to a certain extent, dependent upon the supply of scrap. Mr. Alexander Sattmann, of Donawitz, near Leoben, proposes a combined blast-furnace and Martin process, which would chiefly rely upon pig as raw material, and offer other advantages. The paper goes into details and deserves attention, although the process has, so far as we are aware, not been put to any practical test yet. From the blast-furnace the pig flows in a continuous, slightly inclined stream through a slag separator into a refining furnace, then into the Martin furnace. As the pig in the slag separator is under the gas pressure of the blas-furnace, the separator has been provided with a sluice and been placed on a truck which can be raised with its platform. On the hearth, which is lined with basic material, the pig is exposed to the oxidising action of a number of gas-burners which play upon the surface of the molten metal in blow pipe fashion. The burners are inclined concentric tubes consisting of a gaspipe and an air-jacket; the extremities of the pipes are cooled. The feed of air and gas can be regulated. Part of the gases accompany the metal down into the Martin furnace; another part travels backward into the slag separator and escapes through the chimney, just before it reaches the sluice. As the preparation of the charge in the Martin furnace will require some, though short, space of time, it will be profitable to arrange for two refining hearths or a revolving refining hearth in combination with a metal collector, and to employ a tilting Martin furnace of the Wellman and Campbell type, used at the Illinois and the Pennsylvania steel companies. Mr. Sattmann calculates that a refining hearth, 26ft. by 4ft., with eight burners would suffice for a blast-furnace, yielding 200 tons of pig in 24 hours. With a metal depth of 1ft. the pig would have to remain about 15 minutes on the hearth, and the whole charge would occupy 3 or 3½ hours. In those 15 minutes he hopes to reduce the carbon content down to about 0·5%, and practically to get rid of manganese and silicon. The oxidation period can be shortened by adopting a larger surface or a smaller depth for the pig. Apart from the diminution of the scrap to be added, Sattmann considers that the continuous flow of the metal would ensure a more uniform pig than can be obtained with tapping at intervals, and that his combination of blast-furnace and Martin working would permit of a superior and advantageous utilisation and subdivision of time and labour, and result in a saving of fuel and the number of hands required.—*Engineering.*

Obituary.—It is with sincere regret we have to record the death of *Mr. E. C. C. Stanford*, of the Clydebank Chemical Works, Glasgow, on Saturday last. Among other distinctions, Mr. Stanford was President of the Society of Chemical Industry in 1893-94.—*Dr. John Frederick Hodges*, professor of agriculture and lecturer on medical jurisprudence at Queen's College, Belfast, died on Wednesday at the age of 84.

New Ironfounders' Blacking Manufactory.—The plans have been passed for a large work for the manufacture of the various blackings and coal dust, as used by iron, steel, and other foundries, to be erected at Maryhill, N.B. The buildings, which are to consist of grinding mill, seven storeys in height, engine and boiler rooms, stores, etc, are all to be constructed of fire-proof material. The mill will be founded on a thick bed of rammed Portland cement concrete, with bottom walls built with brick and cement, 3ft. thick, having steel beams and joists bolted to them, with iron-plate floors and stairs. The machinery will be of the latest and most improved description for crushing, grinding, separating, and treating the kinds of materials used in the course of manufacture, and capable of giving a large output of finished material production. The work of erection and fitting up of the machinery will be under the personal superintendence of Mr. Andrew M. Wilson, 11, Hayburn-street, Partick.

COPPER SULPHATE FOR SUPPRESSING CHARLOCK.

RECENTLY we published some instructive details concerning the results of spraying charlock in various parts of the country. Further information relating to this important subject is now available in the form of a report on the spraying of charlock and runch issued under the auspices of the Yorkshire College and the East and West Ridings Joint Agricultural Council. The experiments were carried out at various centres in Yorkshire, and the two spraying materials employed were sulphate of copper and sulphate of iron. For the purpose of spraying on a large scale, Messrs. Strawsons, 71A, Queen Victoria-street, London, adapted one of their potato sprayers, but the report states that next season this firm will put three new machines on the market, costing respectively £5, £9., and £16, the highest-priced one being automatic. At a very early stage of the trials it became apparent that the weather is a most important factor in determining the success or failure of the operation. The first trial, made on a bright, dry, calm day, was a decided success whilst the least successful of the trials took place on a showery day. It soon became evident that in wet, windy weather, no success could be looked for. The uniform experience was that charlock or runch, sprayed with a proper quantity of solution, before, during, or immediately after wet weather, to a large extent escaped destruction, the same being the case in windy weather. When, on the other hand, the spraying was effected in dry weather and on a bright calm day, with a sufficient supply of solution of the requisite strength, the results were equally uniform—that is, the leaves of charlock were blackened and eventually completely destroyed. It was abundantly proved that success can only be ensured when the charlock plants are sprayed in the youngest stage. The charlock-infested crops that were sprayed included oats, barley, and spring wheat, and there was no complaint from any centre of deterioration in either quality or quantity of the harvested grain, nor was any difference observed in the times of ripening. No injurious effect of the spraying was noticed in the case of young clovers and grasses amongst which charlock might happen to be growing. To test this point in another way three pots growing respectively red clover, mustard, and wheat were sprayed with equal quantities of a 12 per cent. solution of sulphate of iron, the plants being all quite young and the quantity of solution applied being much in excess of that used in ordinary practice. Neither the clover nor the wheat was injured, whereas the mustard—which, like charlock and runch, is a cruciferous plant was entirely destroyed. Sulphate of iron was mostly used in the Yorkshire experiments, but it is rightly pointed out by Professor J. R. Campbell, who has prepared the report, that sulphate of copper possesses the advantage that a much smaller weight per acre is required, and that it is a more agreeable material to use than sulphate of iron. The question is raised as to the manner in which these sulphates injure charlock and other cruciferous plants. At the outset it was supposed that the roughness of the charlock leaves, by permitting the spray to be retained on the plant, was a determining factor, but it is stated that many other plants, which retain the spray equally well, escape without injury. The suggestion is made that cruciferous plants contain certain substances peculiar to their order, and that these substances react chemically with iron and copper salts. In summing up the experience gained this year in spraying in Yorkshire 144 acres of grain crops infested with charlock and runch it is concluded—(1) that the operation is only completely successful when the plants are taken in the youngest stage; (2) that a bright, dry, calm day is a necessary factor to success; (3) that in the case of sulphate of iron at least a 10 per cent. solution is required, and should be applied at the rate of not less than 40 gallons per acre—even a 15 per cent. solution may be necessary if the plants have got beyond the first rough-leaf stage; (4) that such solutions will not injure either corn or young seeds. It is hardly necessary for us to add that the plants which have been specially mentioned are the charlock or wild mustard, *Sinapis arvensis*, and the runch or wild radish, *Raphanus raphanistrum*.

FIBRE FROM NETTLES.—Nettle fibre has of late come greatly into favour in the manufacture of fine yarns and tissues in Germany. The raw material is exported almost exclusively from China, whence from 660,000 to 800,000 pounds are annually sent to Germany. Nettle fibre produces one of the finest tissues obtainable from any known kind of vegetable fibre.

A BIG STEEL SYNDICATE.—It is reported that Mr. Frick, who has just resigned the presidency of the Carnegie Company, is about to organise a big opposition syndicate. He has just secured a charter for the new company, with five millions capital, to be called the Union Steel Company. He says the present enormous demand and rise in the prices of steel and iron, and the scarcity of raw material in Germany, provide an opportunity for exploiting America's resources and of ousting all competitors from the home and foreign markets. The venture will, however, require huge capital, the opening up of new mines and the building of new railways.

Trade Notes

COAL IN KENT.—Recently another seam of coal was passed through at the boring at Ropersole, between Dover and Canterbury. The seam was 6in. thick. This makes the third thin seam passed through at this boring.

ELECTROLYTIC ALKALI CO, LTD.—We have received information to the effect that letters of allotment in the Electrolytic Alkali Co., Ltd, have been posted.

MORE CONTINENTAL BLAST FURNACES.—It has been decided to erect a new blast furnace—making the third—at the Kraft Ironworks at Kratzwieck, near Stettin. Forty new coke ovens are also to be established. A new blast furnace—making the third—is also approaching completion at the works of the Société des Hauts-Fourneaux de Toula (Donetz). It is expected to be in operation before the end of the year.

NITRATE STATISTICS.—The Permanent Nitrate Committee in their public statistical circular for December, give the following summary of the position:—(1) Total exports to Europe, November, 3,100,000 qtls.; loading for Europe, 1st December, 2,600,000 qtls. (2) Imports, Europe, November, 83,100 tons. (3) Deliveries, Europe, November, 46,990 tons. (4) Visible supply, Europe, 1st December:—Stocks and afloat, 654,330 tons.

AMERICAN ITEMS.—The Grasselli Chemical Company of Cleveland, O., which corporation has chemical works in Ohio, Pennsylvania, New Jersey, New York and Indiana, will erect a plant on land six miles from Birmingham, Ala. The chemicals will be sulphuric, hydro-chloric and nitric acids. . . . The Solvay Process Company has decided to increase the capacity of its Detroit, Mich., plant, so that the entire production of the company will reach 1,100 gross tons of soda ash per day.

NEW OFFICES.—Messrs. Meldrum Bros., of Atlantic Works, City Road, Manchester, advise us that for the greater convenience of their large circle of clients, they have opened offices at 2, Prince's Mansions, 66, Victoria Street, Westminster, where they will give diligent attention to all enquiries for their specialities, to which has been added a "Koker" Stoker, a combination of mechanical stoking with their well-known forced draught, for securing a smokeless chimney, and at the same time giving high fuel and boiler efficiency.

REVIVAL IN THE SALT TRADE.—Official statistics of the salt trade of the United Kingdom, just issued, show that during November there was, despite the war, a marked revival. 55,692 tons were exported and dealt with coastwise, this being an increase of 3,344 tons on the corresponding period. The exports alone increased nearly 3,500. Liverpool trade suffered to the extent of 1,700 tons, but Runcorn and Manchester Ship Canal improved by nearly 3,000 tons, and Middlesbrough the same. The eleven months' trade is 16,000 tons below last year.

SINGULAR SUFFOCATION CASE.—A shocking affair occurred recently at Anderson-street, in the east end of Glasgow, a mother and her two children being suffocated in bed. A lodger, named James Dougald, also had to be removed in an unconscious state to the Infirmary; while a family who lived beneath had a narrow escape from death, the mother and three children being completely prostrated. It is not known how the poisonous fumes got into the place. No gas jets or pipes were found to be escaping, but the gable of the tenement is built up against a limekiln. The unfortunate woman is named Mrs. McCann, and aged 35; and her children, who have met the same fate, are Barbara, aged four, and Hugh, two. *Mirabile aictu!*

A PROJECTED ZINC COMBINE.—Reports, said to be well founded, are current in Paris of a project for combining together the principal producers of zinc in various countries. Germany is the chief source of this metal, its production being about 140,000 tons per annum. Belgium yields about 110,000 tons and the United States about 100,000 tons. Zinc ore is also obtained, in much smaller proportions, in Holland, Italy, Spain, Australia, and Tunis. From Tunis the supplies have been considerably increasing within the last two years. The entire production of the metal throughout the world is estimated to be 460,000 tons, of which 350,000 tons are contributed by Germany, Belgium and the United States. The movement in favour of combination is understood to proceed from, or at least to be most earnestly promoted in, Germany, where already some sort of agreement exists amongst the producers of zinc. Indeed, one Belgian authority declares that it is not being seriously entertained anywhere else. Other usually well-informed Belgian authorities state, however, that the proposed scheme is making progress, and that it has fair prospects of success. It is added that for its achievement it is not necessary to go outside the three countries where the largest quantities are obtained, since effective control of prices can be secured if the producers of 300,000 tons can be brought into the combination.

The Scarcity of Rain in India.—The Secretary of State for India has received the following telegram from the Viceroy on the subject of the scarcity of rain in India :—"Season continues practically rainless, and short north-east monsoon has seriously affected Madras, Mysore, and Hyderabad. Want of winter rain elsewhere is aggravating situation. No change in prices On relief last week and this week :—Bombay, 208,000 and 253 000 ; Punjab, 75,000 and 68,000 ; Central Provinces, 611,000 and 625,000 ; Berar, 53,000 and 76,000 ; Ajmer, 88,000 and 97,000 ; Rajputana, 95,000 and 205,000 ; Central India, 21,000 and 34,000 ; total, 1,151,000 and 1,358,000.

Mexican Mineral Waters.—Lake Texcoco, which lies to the north-east of the city, is unlike the southern lakes of Chalco and Xochimilco. Its waters are brackish, and form a heavy deposit of natural nitrate of soda, mixed with potash and other salts, which is used in large quantities by chemical factories in the preparation of caustic soda. On the shores of this same lake there are thermal springs with an average of 112°F. (44.5°c.) The late Mr. Romero Rubio constructed an hotel at this place with all modern improvements for the use of persons wishing to take a course of baths. According to the analysis made by the present President of the Board of Health the water contains the following gases :—Nitrogen 68 per cent., oxygen 4 per cent., carbonic acid 24 per cent., besides chloride and bi-carbonate of sodium, bi-carbonate of magnesia, bi-carbonate of calcium, and potash, silica, and other salts and acids in smaller quantities.

Will Cordite be Displaced?—There is a feeling all over Europe and the United States at the present time that the nitro-glycerine powders must eventually give place to a true gun-cotton powder. The Germans have long been using Ballistite, which contains 40% of nitro-glycerine, but they are now experimenting with a view of using a pure gun-cotton powder. France has a powder without nitro glycerine, a gun-cotton compound with some other substance, not nitro glycerine. Spain is using a powder without nitro-glycerine. The British Government cordite, with its large percentage of nitro-glycerine, has done very well, not on account of the large quantity of nitro-glycerine, but because everything connected with it has been so very well done that is, both the nitro-glycerine and the gun-cotton are well made, and the percentage of vaseline being large, the powder has succeeded better than any other kind with a large quantity of nitro glycerine Its erosive qualities, however, make short work of the gun using it. Considerable attention has lately been given to the pure gun-cotton powder made for the United States Naval Service by the California Powder Company. None of this powder has ever detonated or injured a gun, and some remarkable results have been arrived at in obtaining velocities with low pressures equal to cordite. It is stated that velocities, with nearly 3,000ft. per second, with safe pressure, have been obtained with a 6in. Vickers-Maxim gun at Sandy Hook, the projectile being long and heavy for the bore. This is rightly regarded as a great achievement, particularly as the powder does not erode the bore to anything like the same extent as cordite. As before stated, this is a pure gun-cotton powder, and is the only one which has been found successful in large guns in the United States. This powder is the standard for the United States Naval Service, the Dupont nitro-glycerine powder having only been experimentally used.

The Compression of Anthracite Coke.—The tendency of coking coal to increase in bulk during calcination is prevented by the oven walls, so that a certain degree of compression ensues ; but, as the volume of non-bituminous and of gas coal does not increase so much, the compression is insignificant, and it was natural to endeavour to compress these last-named coals mechanically, in order to reduce the volume of their interstices. At first attempts were made to compress the coal in the oven itself by means of heavy plates, or by rolling the coal after it was charged in the oven ; but, as Herr Sachse noticed that a static or rolling load does not exert so great an effect as the fall of a heavy mass, he arranged an opening in the oven roof to permit of stamping. Not one of these methods, however, or that of thrusting the discharger into the oven, gave good results in practice ; but the idea of compressing the coal, before charging, in a box with movable sides corresponding with the inside of the oven, and of charging in the solid mass thus formed, proved more successful. At Witkowitz rollers adjustable to any height were moved backwards and forwards over the coal by means of ropes ; and Herr von Mertens rammed the coal with wood stampers. This method gave better results owing to the great compression given to the coal, and it was improved in various manners. Baumgarten substituted for the coffer of boards a transportable cast-iron box ; and, after the stamping, the sides were removed, when the discharger on the other side drew into the oven the coal mass remaining on the bottom plate, after which the plate was withdrawn by a winch. At the Poremba and Friedenshütte coke-ovens, Guaglio fitted the bottom to a rack, which permitted of pushing the conglomerated coal into the oven by the discharger on the same side ; and lastly Bremme got over the difficulty of this arrangement by constituting the machine roof a solid plate, carrying rails for charging the boxes from the top of the ovens.

Society of Chemical Industry.—*Yorkshire Section.*—In reference to his paper on "The Equivalent Displacement from Sal Solutions," reported on page 383 of our last issue, Mr. Caven writes correcting the following errors :—(1) "Solutions of Cu_2SO_4 of varyin strengths" should read "Solutions of $CuSO_4$ of various strengths." (2 The series of reactions referred to includes hydrolysis of cupric an cuprous sulphate, the latter formed by reduction of cupric sulphate Cu_2SO_4 occurs for $CuSO_4$ in Mr. Wood's remarks, in which the "no before "basic salt" should be omitted. The equation given by Mr Caven in his reply, which is a well-known one ,should be $2Cr_2(SO_4)$ $+H_2O=[Cr_4O(SO_4)_5]SO_4+H_2SO_4$. The third meeting of the sessio will be held at University College, Nottingham, Room 23, on Wed nesday, December 20th, 1899, at seven p.m. The business of th meeting will be devoted to Dyeing, and any subject bearing on th industry. Short papers will be communicated. 1. Professor H. Procter, "On Leather Dyeing." 2. Mr. S. J. Pentecost, "Note o the use of Coal Tar Blacks in Lace Dyeing." 3. The Secretary w exhibit Lovibond's Tintometer, for registering the strength and colou of dyes.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols have gone rather dull, after a slight rally earlier in the we and close at 8½d for 90's and 10½d. for 50/90's, though we und stand 90's have been sold well at about the value given abo Carbolic acids are scarce and very firm, the difficulty being to f sellers at anything like buyers' ideas—crude is fully worth 2s. 10 crystals and liquid unchanged. Solvent naphtha steady at 1s. Creosote firm. Anthracene in better request at 3½d. to 4d. for 30% and 2½d. to 3d. for B. Pitch steady at 33s to 33s. 6d., f.o b. E Coast, and 31s. West Coast

Sulphate of ammonia is not quite so strong. Beckton offers January/April at £11. 10s., and other ports ask £11. 12s. 6d. u next March. For prompt, Beckton quotation is £11. 5s ; Lon (outside makes), £11. 6s. 3d. ; Hull, £11. 5s, to £11. 6s. 3d. ; Leith, £11. 6s. 3d.

MISCELLANEOUS CHEMICAL MARKET.

Business still brisk, and the continued activity in nearly all branc of the chemical trade is making manufacturers very busy. Bleach powder moves freely at £6. per ton. Caustic soda remains very sc for prompt delivery, but without any change in price. Saltcake qu Soda crystals in moderate request at 55s., on rails, makers' wo Chlorates of potash and soda fairly steady at former rates. Pure al scarce and strong at £4 7s. 6d , rails, works. Soda ash, of all gra inclined to rise. Sulphate of copper meets with a moderate amoun inquiry at last week's prices. Arsenic finds plenty of buyers, and pr are strong ; white powdered is worth £19. 5s. to £19. 10s., at Garst yellow, £32. Acetates of lime firm, and but little offering ; prices day are : Brown, £6. 5s ; grey, £9. 10s. Acetic acids in poor sup and prices have an upward tendency Acetate of soda strong at £14. White Acetate of lead (foreign) has advanced 20s per ton Phosp of soda very scarce at £10. 10s. Caustic and carbonate of potash ne unobtainable for prompt delivery. We quote caustic, 75%, £23 ; 9 £26. 10s. Carbonate, 90%, £20. Bichromates are at present so what mysterious, nothing being offered, and apparently stockholders the only people selling ; prices have advanced, and potash is qu 4½d. per lb., and soda, 3¾d. Yellow prussiate of potash dull, prices inclined to fall. Borax down 10s. per ton. Ammonia an salts are firm, with a rising tendency. Carbolic acids are without cha Sulphocyanides slow of sale. Barium chloride steady at £7. per Fine chemicals, generally, find a satisfactory market.

REPORT ON MANURE MATERIAL.

The market is quiet in all departments, and there is no special ness to report.

Notwithstanding modified quotations for high grade mineral p phates, U.K. buyers show no disposition to operate, but business been done to the Continent in 77/80% Florida. Algerian, 58 grade, is still quoted 6¾d. per unit for 1900 shipment, and S Carolina at 6½d., without attracting attention.

East Indian bone meal is somewhat firmer for shipment, and se ask £4. 16s. 3d. per ton for Bombay, ex quay ; Kurrachee may be at less money, 5% sand basis.

Nitrate of soda is quiet in all positions, but on spot quotations re 7s. 10½d. per cwt. for good, and 8s. per cwt. for refined quality.

There is more inquiry for dried blood, but 9s. 9d. per unit is quoted for home-prepared, for prompt delivery, f.o.b. Liverpool.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil keeps very firm, and is only offered in small quantities, though the demand is active. Benin is reported sold at £22. 15s. ex-quay. Olive is rather quiet. Holders are very firm, but sales are limited. Linseed is steady at 22s. 6d. to 23s. 6d cwt. for Liverpool makes in export casks. Cottonseed is firm, with sellers at 20s to 20s. 6d. cwt for Liverpool refined. Castor oil is quiet, with good seconds Calcutta at 2⅝d to 3d , and first pressure French at 2¾d. per lb. Tallow is very firm, and continues to move fairly well despite the full prices. Resin is well held for full values, and there is a fair business doing thereat Spirits of turpentine dearer, with a moderate amount of business doing at 38s. 3d. per cwt. Petroleum steady, with American 7⅝d. to 8⅜d., and Russian refined, 6⅜d. to 6¾d. per gallon

CAKES – The more seasonable weather of the past few days has caused consumers to operate rather more liberally than of late in all descriptions, and recent quotations are very steadily maintained. There is a firm tone apparent in the market for American Western linseed on the spot, and with a good demand experienced sellers asked a shade more money the quotation at the close being given at £7. 2s. 6d. to £7. 6s. 3d per ton. In other imported descriptions the continued absence of first-hand supplies keeps values nominal at £7. to £7. 10s. for River Plate, and at £7. 15s to £8. per ton for Bombay. Consumers of Liverpool makes were rather more in evidence, and the business concluded reached to a moderately fair extent, and previous values are maintained at £8. 2s. 6d. to £9 per ton, according to brand. Good to choice brands of American decorticated cottonseed continue firm at recent rates, viz. £5 17s. 6d. to £6 5s , according to quality, with a good demand still experienced thereat ; Liverpool makes meet a moderate inquiry from consumers, and £6 12s. 6d. to £6. 15s. per ton, according to brand, is still the value, with a very steady tone ruling thereat. Undecorticated Liverpool makes are in fair request, and the range of quotations is still given at £4 16s. 3d. to £5. 10s. per *ton*, according to brand. The market for Egyptian on the spot remains steady, and small sales are being made out of the recent arrivals here at £4 10s. per ton, ex quay

HULL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

OILS—The markets are well maintained, and prices close firm Linseed oil has been easier, but has fully recovered. Refined cottonseed oil closes with an improvement of about 5s. to 7s 6d. per ton in value. The exports of oil for the week have been:—Linseed oil, total 58 tons—3 tons to Belgium, 1 Denmark, 3 Egypt, 5 Holland, 27 India, 2 Italy, 12 Norway Refined cotton oil, 346 tons—16 Belgium, 15 Denmark, 6 Egypt, 60 France, 38 Germany, 209 Holland, 2 Sweden. The imports to date are :—Linseed, 606,783 qrs. against 472,902 qrs ; rapeseed, 105,632 qrs. against 108,105 qrs. ; cottonseed, 159,029 tons against 186,638 tons ; oilcake, 22,143 tons against 14,367 tons ; olive oil, 4,478 tuns against 5,879 tuns ; tar, 14,866 brls. against 12,658 brls Linseed oil closes firmer at 21s naked, for spot, the same being the value January/April, rather sellers ; boiled and refined, £1. to £1. 1os. per ton extra. Refined cotton oil also firmer ; 17s. 10½d. to 18s per cwt., naked ; crude ditto, 16s. 7½d. spot ; casks, £1., and barrels, £1. 10s. per ton extra. Castor oil, cold drawn, 29s. 10d. per cwt. in brls. ; 3⅝d. per lb. in cases ; first pressure 27s. per cwt. in brls. ; 3⅜d. per lb. in cases ; second pressure, 26s. per cwt. in brls. ; 3⅛d. per lb in cases. Olive oil very scarce, with very unreliable deliveries ; prices are higher by about £1. to £2. per tun, being quoted £36. for Candia, to £38. other sorts. Olive oil soap unchanged ; plenty of inquiries, but value prohibitive, being quoted from £18. 15s. ex quay, to arrive. Tallow, 29s. Turpentine, 38s. 6d. Oleines remain firm, being quoted from 22s. for brown, to 25s. for pale. Australian cod oil, £17 - to £19. per ton. Resins unchanged.

CAKES.—If the present weather continues, it will stimulate demand in all feeding stuffs, which, however, was languishing under the late open season. Linseed cakes, 95% pure, £8. 5s. ; oilcakes (linseed), £7 5s ;Russians, £7. 17s. 6d to £8. 2s. 6d. Cotton cakes, tone slightly firmer ; best makes, £4. 12s. 6d. ; seconds, £4. 7s. 6d. ; decorticated, £6. 10s. ; Rape cakes : Black Sea, £4. 10s.

PAINTS.—Practically no demand ; prices unchanged.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

The market here gives out signs already of the approaching annual off-time. There is a slightly lessened turnover, but values are all well maintained. Sulphate of ammonia has fully held its own, and spot price f.o.b. Leith, to-day, is a fairly firm £11. 10s. Forward business (January to March and June) is still being recorded at a substantial premium over the prompt figures. Mineral oils and solid paraffins are all firm at the old prices, and very large deliveries of burning oil ex contracts is now the order of the day. Chemical circles here have suffered a loss in the death, on the 9th inst , of Mr. E C C. Stanford, of the Clydebank Chemical Works, for many years a foremost figure in the profession, and the recipient of many professional and other distinctions. Sugar arrivals at Greenock last week were 37,560 bags cane unrefined, and 152 hhds., 82 brls., and 6,919 bags beat unrefined

Chief prices current are :—Alum in lump, £4 5s. to £4. 15s. nett. Glasgow ; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s nett. Liverpool ; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow) ; bichromate of soda, 2½d , less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow) ; bleaching powder, 35/37°, £5. 10s. to £6., nett, Tyne ; borax, English refined, £16., and boracic acid, £25. nett Glasgow ; caustic soda, white, 74°, £9 10s. ; 70/72°, £9 ; 60/62°, £8., and cream, 60/62° £8. 10s., all nett, Liverpool ; chlorate of potash, 3¼d , less 5% Liverpool ; nitrate of soda, 8s. ; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb. ; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb. : paraffin spirit (naphtha), 11½d. to 1s. per gallon ; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. at Glasgow and other big centres, for Scotch buyers (English sales a shade lower) ; ditto (lubricating) 865°, £5 10s. to £6. ; 885°, £7. to £7. 10s. and 890/895°, £7. 10s. to £8. ; salammoniac, first and second white, £40 and £38. nett, any port ; saltcake, 26s. ; soda ash, £4. 10s. to £4. 15s., nett Tyne ; soda crystals, £2 15s. to £2. 17s. 6d., basis, nett, Tyne ; sulphate of ammonia, £11. 10s. prompt, f.o.b. Leith ; sulphate of copper, £24.15s to £24. 17s. 6d. less 5% Liverpool; white alkali, £5. 2s 6d to £5. 10s. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

The chemical trade is steady, with no alteration in prices Soda crystals, £2. 17s. 6d. per ton, gross weight, locally. Caustic, 70% £9. 5s., and 76/77% £10. per ton. Bleaching powder £6. 10s. per ton softwoods Sulphur scarce at £4. 15s. per ton.

Bleaching powder, softs, £6. 10s. per ton, nett ; do , hards, £6 15s. per ton, nett ; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett ; recovered sulphur, 2 cwt. bags, £4 15s. per ton, nett ; soda ash, 48%, £4 15s. per ton, nett ; do , 50%, £4. 17s. 6d per ton, nett ; do., 52%, £5 0s. per ton, nett ; alkali, 36%, £4. 5s. per ton, nett ; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett ; do 52%, £5. 10s. 0d. per ton, nett ; hyposulphite of soda, 5-7 cwt casks, £6. 5s. per ton, nett ; do., 1 cwt kegs, £7. per ton, nett ; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett ; do , 100° Tw., £3. 12s. 6d. per ton, nett ; do., 140° Tw., £4 per ton, nett ; soda crystals, casks, £2. 17s. 6d. per ton, gross weight ; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight ; pearl hardening, £3 per ton, nett ; pure white sulphate of alumina, £3. 10s. per ton, nett ; blanc fixe, £6. 10s. per ton, nett ; chloride of barium, refined crystals, £6. 15s. per ton, nett ; do., crude calcined, £6. 5s per ton, nett ; carbonate of alumina, £30 per ton. nett ; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt is firm at 10s. per ton, f o b. Tees.

COALS—Trade continues very firm, and the scarcity seems rather greater as holidays draw nearer. Coke is steady at 3 /- per ton, f.o b. To-day's prices are:—Best Northumbrian steam, 14s to 14s. 6d. per ton ; second qualities, 13s. to 13s. 6d. per ton small steam, 8s. to 8s. 6d. per ton ; bunker coals, 13s 3d. to 13s. 6d. per ton ; gas coals, 14s. to 15s ; coke, 30s. per ton.

New Companies.

Blast Furnace Power Syndicate, Ltd.—CAPITAL £100,000. in £1 shares. This company has been formed to acquire any inventions relating to the utilisation of power, whether chemically, electrically, pneumatically, or otherwise, and to erect buildings, furnaces, machinery, etc. The subscribers to the memorandum of association are :—A. C. Turtle, 26, Esmond-road, N.W., clerk ; Miss E. M. Roberts, 20, Alkham-road, N ; C. H. Sims, 103, Endlesham-road, S.W., clerk ; A. E. Tester, 11, Friern-road, S E , clerk ; T. Welch, 30, Solon-road, Brixton, clerk ; G. H. Speer, 392, Hackney-road, N E., clerk ; H. Clifton, 5, Malvern Villas, West End, Aldershot, clerk.

C. and E. Pickstone, Ltd.—CAPITAL £4,000. in £1. shares. This company has been formed to carry on the business of calenderers, finishers, packers, printers, bleachers, dyers, waterproofers, manufacturers and merchants of calico, cotton, linen, woollen, india-rubber, leather, celluloid, and other materials, chemical, drug, and dye-ware manufacturers, etc. The subscribers to the memorandum of association

are:—C. Pickstone, 51, Sion-street, Radcliffe, finisher's townsman; E. Pickstone, 2, Heber-street, Radcliffe, clerk; J. Winstanley, 36, Lancroft-street, Moss Side, Manchester, cashier; B. Brockhurst, Moorhurst, Bury New-road, Kersal, gentleman; H. W. P. Weatherill, 23, Talbot-street, Mauldeth-road, Withington, book-keeper; W. Proctor, 29, Conran-street Manchester, clerk; F. Worthington, Richmond Lodge, Bowdon, gentleman.

Hall Brothers' Timber Company, Ltd.—Capital £25,000, in £10 shares (1,000 preference and 1,500 def.). This company has been formed to acquire and take over as a going concern the business lately carried on by John Hall (now deceased) and James Hall, in partnership, as Hall Brothers, and now by the said James Hall solely, at Newcastle-on-Tyne Dock, Durham, and to carry on the business of timber merchants and creosoting works proprietors, etc. The subscribers to the memorandum of association are:—J. Hall, 9, Prior-terrace, Tynemouth, shipowner; G. W. Bainbridge, 4, Royal Arcade, Newcastle, accountant; J. Robson, 2, Hawthorn-terrace, Newcastle, works manager; P. Schmitz, King-street, Newcastle, merchant; J. K. Spink, 5, Poplar-cresent, Gateshead-on-Tyne, cashier; M. McNaughton Mein, 4, Royal Arcade, Newcastle-on-Tyne, shipowner; C. O. Hall, 4, Arcade, Newcastle, shipowner.

John Williams & Sons (Cardiff), Ltd.—Capital £60,000, in £10 shares. This company has been formed to acquire numbers 9, 13, 15, and 17, Queen-street, Cardiff, with premises in the rear thereof, and the Globe Foundry, East Moors, Cardiff, and the business carried on under the style of John Williams and Sons, and to carry on the business of wholesale and retail iron merchants and manufacturers, ironmasters, iron and steel founders, oil, colour, and chemical manufacturers, etc. The subscribers to the memorandum of association are:—E. H. Holman, 50, Lime-street, E.C., shipowner; R. Cory, Newport-road, Cardiff, colliery proprietor; J. R. Fernier, Falconhyrst, Penarth, near Cardiff, colliery proprietor; L. Williams, Cae Coed, Cardiff, iron merchant; C. E. Williams, Heatherlea, Dyrig-street, Carlisle, iron merchant; F. A. Holman, 50, Lime-street, E.C., shipowner; A. W. Morris, 6, Woodland-place, Cardiff, accountant.

Manchester Oxygen (Brin's Patent) Company, Ltd.—Capital £20,000, in £1 shares. This company has been formed to adopt an agreement with the liquidator of the Manchester Oxygen (Brin's Patent) Company, Ltd., incorporated in 1888, and to carry on the business of oxygen, nitrogen, hydrogen, carbonic acid, carbonic oxide, and gas manufacturers, chemists, electricians, engineers, and contractors. The subscribers to the memorandum of association are:—H. Thompson, 48, Matcham-road, Leytonstone, clerk; V. W. Carlile, Torthorwald, Dorking, clerk; A. G. Robinson, 6, Wiltshire-road, Brixton, S.W., clerk; A. W. White, 69a, Strathleven-road, Brixton, S.W., clerk; P. V. Chapman, 120, Percy-road, Shepherd's Bush, W., clerk; W. C. Cox, 97, Mattisom-road, Harringay, N., clerk; L. E. P. Schemel, 146, Southwark Park-road, Bermondsey, S.E., clerk.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.

Week ending December 2nd.

Acetic Acid—

Holland,	100 pks.	R. W. Greeff & Co.
,,	51	Netherlands S. B. Co.
,,	73	A. & M. Zimmermann
Germany,	7	Argo S. S. Co.

Alkali—

France,	2 t. 6 c.	J. Barber & Co.
———	2 5	,,

Alum—

Holland,	450 pks.	J. White

Alumina—

Holland,	£50	R. W. Greeff & Co.

Antimony Ore—

China,	57 t.	A. J. Humphery & Co.

Barium—

Germany,	4 pks.	H. Johnson & Sons

Barium Chloride—

Germany,	10 pks.	Petri Brs.
,,	22	C. Yerenner & Co.

Barium Sulphate—

Belgium,	85 pks.	O'Hara & Hoar

Barytes—

Germany,	50 pks.	Taylor Brs.
,,	37	J. L. Lyon & Co.
,,	98	W. Harrison & Co.
Belgium,	180	,,
,,	150	J. Kitchen Ld.
Holland,	112	J. L. Lyon & Co.
,,	57	Wilkinson, Heywood, & Co.

Bones—

Brisbane,	5 t.	Goad, Rigg, & Co.
Sydney,	13	,,

Boracic Acid—

Italy,	12 pks.	J. Puddy & Co.

Borate Lime—

Germany,	106 pks.	Dicketts & Co.

Borax—

Germany,	£52	A. & M. Zimmermann
,,	90	T. H. Lee

Caoutchouc—

Germany,	6 c.	W. M. Smith
,,	4 t. 19	Prop. Bull Wf.
Straits,	13	16 E. Boustead & Co.
,,	10	12 L. & I. D. Jt. Co.
U. States,	1	Bissel Carpet Sweeping Co.
France,	2	E. Flageollet & Co.
,,	10	Lewis & Peat
,,	12	Procter Brs.
Zanzibar,	1	8 Hale & Son
Mauritius,		12 W. M. Smith & Sons
B. Honduras,	2	Major & Field
Portugal,	1	Anderson, Weber, & Smith
E. Indies,	5	L. & I. D. Jt. Co.

Carbon—

Holland,	£40	Phillipps & Graves

Castor Oil—

France,	100 pks.	F. Boehm
,,	30 brls.	Lucas & Spencer's Wf., Ld.
Italy,	5 cs.	Potter & Clarke
,,	5	Propr's, Middleton's Wf.

Caustic Potash—

France,	3 pks.	J. Norrenberg & Co.

Chemicals (*otherwise undescribed*)

Germany,	£6	Universal Battery Co.
,,	20	Argo S. S. Co.
,,	10	C. McCombie & Co.
,,	10	T. H. Lee
Norway	203	R. Greening
France,	70	Mory & Co.
,,	8	Burnett Brs. & Sons
U. States,	990	H. Harkness
Holland,	30	Netherlands S. B. Co.
,,	15	H. Lorenz
,,	80	E. Merck & Co.
,,	13	A. & M. Zimmermann
Italy,	7	J. Coppo & Co.
,,	96	Netherlands S. B. Co.
Belgium,	111	E. Merck & Co.
,,	22	John Cockerill Line
Sydney,	450	L. & I. D. Jt. Co.

Coal Products—

Tar

N. Russia,	100 brls.	Produce Brokers Co., Ld.

Cobalt Ore—

N. S. W.,	20 t.	L. & N. W. Rly. Co.

Colours—

Holland,	21 cks.	R. Baelz & Co.
,,	3	Robinson, Roberts, & Co.

Copperas—

Germany,	£68	Burgoyne & Co.

Cream of Tartar—

Italy,	30 pks.	W. C. Bacon & Co.
,,	20	Hore & Scrivener
France,	5	W. C. Bacon & Co.
,,	23	F. C. Devon & Co.
,,	4	H. Johnson & Sons
Spain,	13	B. & F. Wf. Co., Ld.
Holland,	18	Kirkpatrick, Barr & Co.

Cresilic Acid—

Germany,	50 pks.	J. G. Bach

Dyestuffs—

Alizarine

Holland,	13 pks.	M. Benscher

Aniline

Holland,	33 pks.	M. Benscher

Aniline and Alizarine

Holland,	55 pks.	M. Benscher

Argois

Italy	397 pks.	B. Jacob & Sons

Cutch

Rangoon,	139 pks.	Lewis & Peat
Japan,	700	J. Swire & Sons

Extract

Germany,	50 pks.	T. H. Lee
Austria,	30	Bailey & Leetham, Ld.
Denmark,	1	Tegner, Price, & Co.
,,	3	Sorensen & Co.
U. States,	150	Skilbeck Brs.
France,	25	J. L. Levinstein & Sons
,,	25	Beresford & Co.

Gambier

Straits,	1,001 pks.	Leach & Co.

Indigo

E. Indies,	7 chts.	Parsons & Keith
,,	85	L. & I. D. Jt. Co.
,,	10	J. Owen
Holland,	4 brls.	M. Benscher

Myrabolams

E. Indies,	2,373 pks.	H. J. Perlbach & Co.

Naphtha'ene

Germany,	33 pks.	Fleming's Oil & Chemical Co.

Saffron

Spain,	1 pk.	L. & I. D. Jt. Co.
,,	1	Richardson, Spence, & Co.
,,	3	H. Rubeck
,,	4	C. Brumlen & Co.

Sumach

Italy,	303 pks.	Union L. Co., Ld.

Tanners' Bark

Cape,	7 t.	Union L. Co., Ld.
Natal,	77	Bullard, King, & Co.
Belgium,	2	Bevington & Sons

Turmeric

China,	188 pks.	H. A. Litchfield & Co.
,,	161	H. Kiver & Co.

Valonia

A. Turkey,	50 t.	Anning & Cobb
,,	105	Hicks, Nash, & Co.
,,	85	Adam Brs.
,,	25	S. Barrow & Bro.

Farina—

Holland,	250 pks.	J. Barber & Co.
France,	3	Rosenberg, Loewe, & Co.
,,	4	E. Flageollet, Parent, & Co.
Germany,	50	Pronk, Davis, & Co.

Glucose—

Germany,	5 pks.	40 c.	J. Knill & Co.
U. States,	30	118 G.	W. Sheldon & Co.
,,	500	500	Pickford & Co.
,,	550	3,400	Litchfield & Co.
,,	851	2,566	R. G. Hall & Co.
,,	50	294	C. & E. Morton
,,	200	1,174	Ohlenschlager Brs.

Glue—

France,	£60	Burnett Brs. & Sons
,,	2,534	T. M. Duche & Sons
,,	53	J. Harrison
Belgium,	263	Becker & Wagner
,,	230	G. F. Banes
U. States,	290	W. Dixon
Germany,	34	M. Dk. Co.
,,	60	L. & I. D. Jt. Co.
,,	75	Otto Schmidt & Co.
,,	14	T. H. Lee
Holland,	60	Netherlands S. B. Co.
Sydney,	63	Goad, Rigg, & Co.

Glycerine—

France,	£410	H. Hill & Sons
Germany,	29	T. H. Lee
Holland,	350	J. Barber & Co.

Gutta Percha—

Straits,	33 t.	10 c.	Prop. Bull Wf.
,,	30		H. W. Jewsbury & Co.
,,	20	2	Gilman Brs. & Co.
,,	4	8	L. & I. D. Jt. Co.
,,	18	5	Soundy & Sons
,,	25	12	Anderson, Weber, & Smith

Lead Acetate—

Holland,	18 pks.	Petri Brs.

Limespar—

Germany,	£83	L. & I. D. Jt. Co.

Lysol—

Germany,	£48	A. & M. Zimmermann

Magnesia—

U. States,	150 pks.	S. Lambert & Co.

Manure—

Bombay,	200 t.	T. T. Creed
,,	200	W. Norfolk Farmers' Manure Co.
,,	100	Hollinghurst & Co.

Methylic Alcohol—

Austria,	2,135 g.	H. Wallace & Co.

Molasses—

U. States,	100 cks.	565 c.	Ohlenschlager Brs.
,,	50	2,898	Cooperage Wf.
,,	792	4,505	J. Forser
,,	3,500	21,104	R. G. Hall & Co.
Holland,	200	1,100	Ohlenschlager Brs.

Ochre—

Belgium,	49 pks.	F. Claydon & Co.
Holland,	48	Phillipps & Graves
France,	55	J. L. Lyon & Co.
,,	28	Wilkinson, Heywood & Co.

Paraffin Wax—

U. States,	29 bgs.	L. & I. D. Jt. Co.

Phosphate—

Holland,	180 t.	D. de Pass & Co.
France,	267	T. Farmer & Co.
,,	150	A. Hunter & Co.
U. States,	500	D. T. Boyd
,,	150 pks.	Seaward Brs., Ld.

Phosphoric Acid—

Germany,	8 pks.	Petri Brs.

Potash—
Belgium 16 pks.
Germany, 20
,, 127 Craven & Co.
N. Russia, 13 M. Dk. Co.

Potassium Bicarbonate—
Holland, 1 t. 10 c. A. & M. Zimmermann

Potassium Carbonate—
France, 3 t. 10 c. A. Zumbeck
Germany, 1 9 J. M. Steel & Co.
,, 1 Petri Brs.
,, 5 Charles & Fox
Canada, 30 ,,

Potassium Muriate—
Germany, 700 pks. Bessler, Waechter, & Co.

Potassium Silicate—
Holland, 19 pks. J. Barber & Co.

Potassium Sulphate—
Germany, 200 pks. Bessler, Waechter, & Co.

Pyrogallic Acid—
Germany, 5 pks. L. & I. D Jt Co.

Red Lead—
Germany, 2 pks. Randall Brs.
,, 38 Perkins & Homer
Holland, 38 H. Lambert

Rosin—
France, 24 cks. Poth Hille. & Co
,, 24 brls. F. & S Chiesman
,, 10 R. James & Co.
U. States, 500 Moore & Hole
,, 1,000 R. Wheen & Sons
Brunswick. 595 T. Nickels & Co.

Salicylic Acid—
Belgium, 31 pks. J. Cockerill Line
Germany, 7 T. H. Lee

Salt—
Germany, £50 Becker & Wagner

Saltpetre—
Germany, 70 cks. P. Hecker & Co.
E. Indies, 1,192 bgs. Perkins & Homer

Soda—
Belgium, 50 t. 2 c. A. G. Barker

Sodium Bicarbonate—
Holland, 5 c. A. & M. Zimmermann

Sodium Sulphate—
Belgium, 2 pks. J. Harrison

Starch—
Germany, 6 pks. T H. Lee
,, 200 Phillipps & Graves
,, 2,510 Horne & Co.
Belgium, 119 Leach & Co.
,, 160 T. Ronaldson & Co.
,, 60 T. H. Lee
Holland, 16 J. Barber & Co.
,, 40 Hernu, Peron, & Co.
,, 1,031 Little & Johnston
,, 30 G. S. N. Co.

Stearine—
Holland, 23 bls. J. Owen
Belgium, 63 cks. H. Hill & Sons
N.S.W., 125 Price & Co.
Queensland, 63 Deering & Robottom

Sulphur—
Italy, 200 t. B. Jacob & Sons

Sulphur Chloride—
Holland, 40 pks. Typke & King
,, 20 J. Owen

Tallow—
N.S.W., 29 cks. Hoare & Wilson
,, 126 Deering & Robottom
,, 57 Elkan & Co.
,, 188 Culverwell, Brooks, & Co
,, 412 Anning & Cobb
,, 199 Aust. Meat Co.
,, 695 Goad, Rigg, & Co.
,, 120 Kleinwort, Sons & Co.
,, 891 Phillipps & Graves
,, 583 G. S. Yuill & Co.
,, 324 Union Ltge. Co, Ld.
,, 374 Beresford & Co.
,, 212 A. F. Gardiner & Co.
Queensland, 1 J. Greig
,, 183 Warrington & Laing
,, 61 Beresford & Co
,, 504 Mordaunt Brs.
,, 126 H. Lambert
,, 24 bgs. Aust. Meat Co.
,, 18 cks. Goad, Rigg, & Co.
,, 88 Daley & Co., Ld.
,, 63 Lucas & Spencer's Wf.
,, 126 Phillipps & Graves
U. States, 170 brs. Armour & Co.
,, 3 cs. Lunham & Moore
Belgium, 44 bgs. T. Ronaldson & Co.
France, 143 H. Hill & Sons
N. Zealand, 23 cks. Shaw, Savill, & Co.
Cape, 11 Anning & Cobb

Tartar—
Italy, 9 pks. Fellows, Morton, & Co
,, 43 B. Jacob & Sons
,, 20 Howards & Sons

Tartaric Acid—
Belgium, 4 pks. F. C. Devon & Co.
Germany, 30 ,,
,, 2 Page, Son, & Co.

Ultramarine—
Belgium, 4 pks L. & N.-W. R. Co.
Holland, 95 G. S. N. Co.
,, 12 W. Harrison & Co.
Germany, 20 Steinhoff, Sons, & Co.
,, 11 J. Kitchin, Ld.

Varnish—
U. States, 22 pks. Lunham & Moore
,, 38 Atlantic Transport Co.
,, 22 J. R. Francis & Co.
Germany, 10 B. & F. Wf. Co., Ld.

Waste Salt—
Germany, 50 t. Perkins & Homer

White Lead—
Germany, 4 pks. R. W. Greeff & Co.
,, 18 Perkins & Homer
,, 81 Wilkinson, Heywood & Co.
,, 12 Robertson, Selley, & Co
,, 57 R. Steuert
Belgium, 33 ,,
,, 1 H. Lambert
,, 73 J. L. Lyon & Co.
,, 15 Fielder, Hickman, & Co
Holland, 74 A. & M. Zimmermann
,, 45 Burrell & Co.
Norway, 20 R. W. Greeff & Co.

Wolfram Ore—
Portugal, 1 t. 1 c L. & I. D. Jt. Co,
Queensland, 1 2 Brown & Elmslie

Wood Pulp—
Belgium, 1,652 pks. J. Harrison
Germany, 1,215 L. & I. D. Jt. Co.
,, 105 Becker & Wagner
Sweden, 240 Alsing & Co., Ld.
,, 400 W. G. Taylor & Co.
,, 1,604 Erith & Dartford
,, 250 Tough & Henderson
,, 976 M. D. Co.
Norway, 160 Murray's Royal P. M., Ld.
,, 250 Daily Telegraph Co.
,, 3,100 Johnsen & Jorgensen
,, 830 Andrews & Co., Ld
,, 1,050 A. E. Reed & Co.
Holland, 77 Thames S. T. & L. Co., Ld.
,, 100 Fellows, Morton, & Co.
,, 77 Henderson, Craig, & Co.
——, 800 London Paper Mills Co.

Zinc Oxide—
U. States, 31 pks C. W. Waters, Ld.
,, 500 M. Ashby, Ld.
Holland, 200 ,,
Germany, 50 J. Matton
,, 75 Burrell & Co.
,, 27 R. W. Greeff & Co.

LIVERPOOL.

Week ending November 30th.

Acetate of Lime—
New York, 1,116 bgs.

Barytes—
Antwerp, 86 cks

Bone Ash—
Zarate, 133 bgs. J. Nelson & Sons

Bone Black—
Philadelphia, 30 brls.

Bones—
Jaffa, 294 bgs.

Boracic Acid—
Leghorn, 14 cks. Pickford & Co.
, 92

Borate of Lime—
Valparaiso, 456 bgs.

Chemicals (*otherwise undescribed*)
Hamburg, 4 cks.

Coal Products—
Pitch
Hamburg, 77 cks.

Colours—
Antwerp, 3 cks.
Hamburg, 2

Cream of Tartar—
Barcelona, 3 cks.
Bordeaux, 19

Dyestuffs—
Cochineal
Gd. Canary, 40 bgs. G. S. Bruce
,, 40 Barrett & Co.
Las Palmas, 10 Yeoward Brs.
Cutch
Rangoon, 150 bxs.
Extracts
Bordeaux, 405 cks. R. J. Francis & Co.
Hamburg, 4
Nantes, 550
New York, 50 bxs. McArthur
70 bls. & Co.
Phil'd'lphia, 80
200 bxs.
1 crt.
St. Nazaire, 160 cks.
Fustic
Kingston, 912 pcs. Gillespie Brs.
,, 2,759
Boston, 138 pks.
Fustic Extract
Colon, 50 cs. D. Midgeley & Sons
Indigo
Valparaiso, 37 srns.
Quebracho Extract
B. Ayres, 400 bgs.
Saffron
Seville, 2 cs.
Sumach
Palermo 450 bgs.
Valonia
Constantinople 264 bgs. J. Senger & Co.
Patras, 80
Smyrna, 1,190 bgs.
2,537 bls.
40 t.
,, 208 10 c. Barry Brs.
Syra, 250 bgs. C. Nicolaides

Glucose—
Baltimore, 300 brls.
Boston, 1,900
New York, 910

Glue—
Hamburg, 230 bgs.

Logwood—
Belize, 187 t. E. Schallen & Co.

Molasses—
N. Orleans, 2,700 brls.

Paraffin Wax—
New York, 1,803 brls. Thompson & Bedford
Rangoon, 163 bgs.

Phosphates—
Pt. Royal, 2,008 t.
Savannah, 3,679

Potash—
Hamburg, 30 cks.

Potassium—
Bordeaux, 9 cks.

Pyrites—
Huelva, 1,835 t. Matheson & Co.

Rosin—
Hamburg, 7 bls.
1 cs.
Savannah, 1,800 brls.

Saltpetre—
Hamburg, 129 cs.
12 cks.
260 bgs.

Soap—
Boston, 30 cs.
Havre, 2 Cunard S.S Co.
Lagos, 2 brls.
N. Orleans, 700
New York, 2,530 bxs.

Starch—
Antwerp, 390 cs. J. T. Fletcher & Co.
,, 319
Baltimore, 200 bgs.

Stearine—
Antwerp, 100 bgs.

Tallow—
Baltimore, 450 tcs
Gothenburg, 27 pks. G. Schentzen
M. Video, 132 brls. Hevcroft & Pitburch
New York, 300 tcs.
600 hhds.
St. John's, 10 brls.
Sydney, 64 cks. Co-op W'sale Society Ld.
,, 1,261 Lever Brs.
Zarate, 240 pps.

Tartaric Acid—
Hamburg, 15 cks.

Varnish—
New York, 20 brls. W. A. Warren

Washing Powder—
Boston, 600 bxs.

Waste Salt—
Hamburg, 5,280 bgs.

White Lead—
Antwerp, 4 cks.

Zinc Oxide—
Antwerp, 1 bl.

MANCHESTER.

Week ending December 2nd.

Acetate of Lime—
New York, 1,243 bgs.

Antimony Oxide—
Rotterdam, 1 ck.

Antimony Salt—
Rotterdam, 2 cks.

Barytes—
Antwerp, 310 bgs.
Rotterdam, 100

Caustic Lye—
Hamburg, 40 cks.

Chalk—
Rouen, 3 cs.

Chemicals (*otherwise unnamed heads*)
New York, 20 cks.
Rotterdam, 2 8 cs.

Coal Products—
Alizarine
Rotterdam, 16 cks.
Aniline Colours
Rotterdam. 63 cks. 8 cs.
Aniline Salts
Rotterdam, 18 cks.

Colours—
Antwerp, 13 brls.
Hamburg, 1 cs.
Rotterdam, 22 cks.
80 bls.

Cottonseed Oil—
New York, 50 brls.

Cream of Tartar—
Rotterdam, 12 cks.

Dyestuffs—
Extract
Nantes, 300 cks. J. & P. Hutchison
Rouen, 4 14 cs.
New York, 35 bxs.
20 brls.

Farina—
Hamburg, 100 bgs.
Rotterdam, 663

Gelatine—
Antwerp, 20 cs.

Glucose—
New York, 578 brls.

Glue—
Antwerp, 20 bls.
Rotterdam, 20 bgs.
Rouen, 20
17 cks.

Limestone—
Antwerp, 2 crts. J. T. Fletcher & Co.

Lithopone—
Rotterdam, 20 cks.

Nitrate—
Rotterdam, 11 cks.

Paraffin Wax—
New York, 2,502 brls.

Potash—
Hamburg, 10 cks. 20 dms.
Montreal, 8 brls.

Potassium Prussiate—
Rotterdam, 20 cks.

Potassium Sulphate—
Rotterdam, 1 cks.

Pyrites—
Drontheim, 1,000 t.

Red Lead—
Rotterdam, 24 cks.

Saltpetre—
Hamburg, 6 cks.

Soap—
New York, 100 brls.

Soapstone—
Bordeaux, 200 bgs. G. G Blackwell, Sons, & Co.
Genoa, 250

Soda Crystals—
Rouen, 10 cks.

Sodium Nitrate—
Rotterdam, 23 cks.
Starch—
Antwerp, 436 cs.
N. York, { 1,600 bgs. 100 brls.
Rotterdam, 200 cs.
Stearine—
Rotterdam, 64 bls
Tallow—
New York, 100 hds.
Tannin—
Rotterdam 6 cks
Tar Salts—
Rotterdam, 17 cks.
Tartar—
Bordeaux, 2 cks J. & P. Hutchison
Tartaric Acid—
Hamburg, 5 cks.
Rotterdam 20 kgs.
Ultramarine—
Hamburg, 10 cks.
White Lead—
Antwerp, 5 cks.
Wood Pulp—
Gefle, 5,700 bls.
Kallero, 1,680
Hamburg, 1,015 bills.
Montreal, 200
Sarpsborg, 3,161 bls. Kellner Partington P. P. Co.
Zinc Oxide—
Antwerp, 10 cks
Hamburg, 25 cs.
New York, 200 brls.
Zinc White—
Rotterdam, 25 cks.

HULL.

Week ending December 2nd

Barytes—
Antwerp, 106 cks. H. F. Pudsey
Hamburg, 100 bgs. Wilson, Sons, & Co. Ld.
Rotterdam, 21 cks. Hull & Netherlands S. S. Co.
Chemicals *(otherwise undescribed)*
Ghent, 100 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 cs. Hull & Netherlands S. S. Co
Coal Products—
Alizarine
Rotterdam, 55 brls. Hull & Netherlands S. S. Co
90 pks.
Aniline
Rotterdam, 63 pks. Hull & Netherlands S. S. Co.
Aniline Colours
Rotterdam, 71 pks. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 19 pks. Hull & Netherlands S. S. Co.
Pitch
Antwerp, 4 cks. Wilson, Sons, & Co., Ld.
Rotterdam, 12 Hull & Netherlands S. S. Co
Colours—
Amsterdam, 2 cks. Hull & Netherlands S. S. Co.
Antwerp, 78 pks. Wilson, Sons, & Co., Ld.
Ghent, 20 cks.
Hamburg, 3 "
Rotterdam { 1 / 104 pks / 22 brls. / 9 bxs. Hull & Netherlands S. S. Co.
Cottonseed Oil—
New York, 300 brls. Wilson, Sons, & Co., Ld.
Cream of Tartar—
Bordeaux, 7 cks.
Dyestuffs—
Extract
Bordeaux, 110 cks.
Dunkirk, 10 Wilson, Sons, & Co., Ld.
Rouen. 45 "
Indigo
Rotterdam, 10 brls. Hull & Netherlands S. S. Co.
Dyewood—
Rotterdam, 3 cks. Hull & Netherlands S. S. Co.
Farina—
Ghent, 200 bgs.
Hamburg, 100 Wilson, Sons & Co., Ld
100 W. Gilyott & Co.
Harlingen, 150 bls. Hull & Netherlands S. S. Co
Stettin. 215 pks.
Glucose—
New York, 50 brls. Wilson, Sons, & Co., Ld.
" 450
Glue
Christiania, 10 bgs. Wilson, Sons, & Co., Ld.
Christiansund, 2 brls. "
Dunkirk, 11 cks. "
Hamburg, 160 bgs. "
Rouen. 130 cs. "
Glue Stock—
Hamburg, 175 bls. Wilson, Sons, & Co., Ld.
Limestone—
Antwerp, 3 cs. Bailey & Leetham, Ld.
Linseed Oil—
Amsterdam, 35 brls Hull & Netherlands S. S. Co.
Litharge—
Rotterdam, 9 cks. Hull & Netherlands S. S. Co
Logwood—
Hamburg, { 20 bgs. 293 pcs
Ochre—
Rouen, 100 pks. Wilson, Sons, & Co., Ld.
Phosphates—
Antwerp, 50 bgs. Wilson, Sons, & Co., Ld.
Potash—
Antwerp, 25 cks. Wilson, Sons, & Co., Ld.
Dunkirk, 20 cks. "
Red Lead—
Amsterdam, 15 cks. Hull & Netherlands S. S. Co.
Rosin Oil—
Amsterdam, 18 cks. Hull & Netherlands S. S. Co.
Salammoniac—
Antwerp, 2 brls. Wilson, Sons, & Co., Ld.
Saltpetre—
Antwerp, 125 bgs. Wilson, Sons & Co., Ld.
Hamburg, 1 ck.
Silicate—
Antwerp, 91 bgs. Wilson, Sons, & Co., Ld
Soda—
Amsterdam, 135 bgs. Hull & Netherlands S. S. Co.
Antwerp. 100 Wilson, Sons, & Co., Ld.
Ghent, 100 "
Starch—
Amsterdam, 30 bgs. 40 cs. Hull & Netherlands S. S. Co.
Antwerp, 400 Bailey & Leetham, Ld.
Bremen, 1,727 Veltmann & Co
Ghent, 130 Wilson, Sons, & Co., Ld.
Stearine—
Antwerp, 6 bgs. Wilson, Sons, & Co. Ld.
Rotterdam, 15 Hull & Netherlands S. S. Co.
Tallow—
Dunkirk, 81 cks Wilson, Sons, & Co, Ld.
New York, 100 trcs. "
Tartaric Acid—
Rotterdam, 10 cks. Hull & Netherlands S. S. Co.
Turpentine—
Bordeaux, 25 cks.
Ultramarine—
Bremen, 2 cks. Veltmann & Co.
Rotterdam, 1 Hull & Netherlands S. S. Co
White Lead
Antwerp 11 brls. Bailey & Leetham, Ld.
Dunkirk, 10 cks.
Rotterdam, 135 Hull & Netherlands S. S. Co.
Wood Pulp—
Abo, 381 bls. J. Good & Sons
Christiania, 20 pks. Wilson, Sons, & Co., Ld.
Drontheim, 200 bl. "
Gothenburg, 68 pks. "
Zinc Oxide—
Antwerp, 72 brls. Bailey & Leetham, Ld.
Zinc Sulphite—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending December 7th

Alumina—
Antwerp, 97 bgs. Crawford & Co
Asbestos—
Genoa, 30 pks.
Barium Chloride—
Hamburg, 23 cks.
Barium Sulphate—
Antwerp, { 1000 bgs. 70 cks.
Barytes—
Hamburg, { 103 bgs. 11 cs
Rotterdam, 115 cks, 19 pks. J. Rankine & Son
Castor Oil—
Antwerp, 83 cks.
Leghorn, 5 cs.
Coal Products—
Alizarine
Rotterdam, 2 cks J. Rankine & Son
1 cs.
Aniline
Rotterdam, 19 cks. J. Rankine & Son
Aniline Colours
Rotterdam, 3 cs. J. Rankine & Son
Colours—
Antwerp, { 5 cks / 2 cs.
Hamburg, { 1 / 5 cks. / 3 pks.
Rotterdam, { 221 / 6 cks. / 32 cs. J. Rankine & Son
Cream of Tartar—
Genoa, 4 brls.
Dyestuffs—
Cutch
Rangoon, 520 bxs. P. Henderson & Co.
Extract
Antwerp 1 ck.
Baltimore. 10 brls.
Rotterdam, 2 cks J. Rankine & Son
Glucose—
Baltimore, 50 brls.
Newport News, 600
Glue—
Rotterdam, 62 bgs. J. Rankine & Son
Nickel Ore—
Poro, 4 350 t. Nickel Co
Paint—
Christiania. 3 cks.
Paraffin Wax—
Rangoon, 385 cs. P. Henderson & Co.
Potash—
Rotterdam, 48 cks J. Rankine & Son
Silicon Ore—
Antwerp, 30 t.
Soap—
Baltimore, 1 cs.
Genoa, 100
Rotterdam, 25 bxs. J. Rankine & Son
Sodium Sulphate—
Antwerp, 11 cks.
Starch—
Antwerp, 131 cs
Baltimore. 775 bgs.
Newport News, 800 sks.
Rotterdam, 103 cs. J. Rankine & Son
Stearine—
Antwerp, 7 bgs.
Tallow—
Baltimore, 57 brls.
Tannin—
Hamburg, 1 cs
Tartar—
Bordeaux, 11 cks.
Tartaric Acid—
Amsterdam, 13 brls. J. R
Varnish
Antwerp, { 4 cyls. 4 cks.
Waste Salt—
Hamburg, 2,500 bgs.
White Lead—
Rotterdam, 50 cks.
" 1 pk. J. Rankine
Wood Pulp—
Christiania, 1,035 bls.
Christiansan, 200
Zinc Oxide—
Antwerp, 25 cks.

TYNE.

Week ending December 2n

Asbestos—
Rotterdam, 9 bls.
36 bgs. S. S
Barytes—
Rotterdam, 110 bgs Tyne S. S.
Colours—
Rotterdam, 1 ck. Tyne S. S.
Glucose—
New York, 3,100 brls. Fur Withy &
Paraffin Wax—
New York, 593 brls. C. Hase
Phosphate—
Pensacola, 2,500 t.
Starch—
Rotterdam, 57 cs. Tyne S. S.
Tallow—
New York, 15 pks. Fur Withy &
Wood Pulp—
Christiania, 903 bls.

GOOLE.

Week ending November 29

Antimony—
Boulogne 6 cks
Barytes—
Antwerp, { 10 bgs 34 cks.
Caoutchouc—
Boulogne, 7 cks.
Hamburg, 1 cs.
Colours—
Boulogne, 48 cks 16
Hamburg, 8 8 cs.
Rotterdam. 310 43
Dyestuffs—
Extract
Hamburg, 93 brls.
Farina—
Delfszhyl, 650 bgs.
Glue—
Rotterdam, 23 bgs. 1 cs
Ochre—
Dunkirk, 72 cks.
Phosphate—
Ghent, 808 bgs.
Potash—
Antwerp, 19
Dunkirk, 40
Hamburg, 31 cks. 13
Potassium Sulphate—
Dunkirk, 4 cks. 28
Starch—
Amsterdam, 30 bgs.
Ghent, 96 cs.
Sulphur Ore—
Huelva, 1,900 t.
Waste Salt—
Hamburg, 343 cks.

GRIMSBY.

Week ending December 2

Barytes—
Hamburg, 50 cks.
Rotterdam, 60 bgs.
Caoutchouc—
Antwerp, 1 ck. 1 cs

Hamburg, 27
Rotterdam, 3

Chemicals *(otherwise undescribed)*
Antwerp, 1 cs.
Hamburg, 4 cks. 4
Rotterdam, 1

Colours—
Antwerp, 11 cks. 119 pks.
Hamburg, 43 10 cs. 203
Rotterdam, 3

Farina—
Hamburg, 100 bgs.

Glue—
Hamburg, 1 ck.

Soap—
Rotterdam, 60 bxs.

Starch—
Antwerp, 160 cs.

Varnish—
Hamburg, 1 cs.

Wolfram Ore—
Hamburg, 10 cs.

Zinc Ashes—
Rotterdam, 5 cks.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending December 6th.

Acids—
Channel Is., 18 crbys. £34

Alkali—
Brisbane, 10 c. £5

Ammonia—
Melbourne, 30 cs. £41
Sydney, 40 55

Ammonium Carbonate—
Cologne, 5 t. 18 c. £162
Bombay, 10 17
Yokohama, 5 141

Ammonium Muriate—
Sydney, 5 t. 16 c. £1 7

Ammonium Sulphate—
Antwerp, 102 t. 12 c. £ 203
Ghent, 50 510
Hamburg, 150 1,720
Jersey, 10 16 12
Malaga, 150 4 1,614
Mauritius, 102 1,060
Ostend, 70 660
Stettin, 50 570

Arsenic—
Rockhampton, 10 c. £13
Yokohama, 1 t. 21

Basic Slag—
Barbadoes, 21 t. 16 c. 150

Borax—
Auckland, 5 t. 0 c. £90
Madras, 1 3 54
Melbourne, 30 kgs. 25
Wellington, 10 8

Calcium Chloride—
Sydney, 10 t. 10 c. £26

Carbonic Acid Gas—
Rotterdam, 6 cyldrs. £27
Paris, 11 fl-ks. 50

Caustic Soda—
Canterbury, 13 c. £44
Cape Town, 1 t. 16 41
Dunedin, 1 11 38
E. London, 2 11
Mossel Bay, 5 6
Rio de Janeiro, 14 10 147
Singapore, 13 11
Townsville, 1 11

Chemicals *(otherwise unescribed)*
Alexandria, 7 cs. £18
Antwerp, 4 cks. 70
Bombay, 5 23
Cape Town, 8 15 69
Constantinople, 10 brls. 32
Demerara, 1090 bgs 61
Dunkirk, 21 dms. 72
Durban, 25 20
Genoa, 5 kgs. 99
Hamburg, 16 cks. 214
Hiogo, 10 80
Lisbon, 3 38
New York, 10 45
Paris, 25 pks. 42
Perth, 65 47
Rosario, 8 33
Rotterdam, 16 20
Singapore, 20 1
Stockholm, 80
Sydney, 20 8
Wellington, 40 brls 6 12 338
Yokohama, 65 20
16 1.6

Chloride of Lime—
Durban, 1 t. 1 c. £14
Pt. Elizabeth, 1 13

Citric Acid—
Auckland, 1 kg 67
Hamburg, 2 10 c. 269
Reval, 15 102
Rotterdam, 5 33
St. John, N.B., 2 16

Coal Products—
Aniline Dyes
Melbourne 1 cs. £10
Anthracene
Cologne, 13 cks. £411
Benzol
Antwerp 60 brls. £116
Carbolic Acid
Cologne, 96 cks. £441
Rio de Janeiro, 1 cs. 7
Shanghai, 10 dms. 7
Sydney, 10 60 50
Creosote
Gothenburg, 200 cks. £161
Naphtha
Dunedin, 82 dms. £44
Naphthaline
Hamburg, 7 cks. £61
Shanghai, 60 81
Pitch
Amsterdam, 1 373 t. £2,660
Antwerp, 1 070 1,646
Dunkirk, 797 1,370
Melbourne, 20 brls. 15
Tar
Auckland, 13 brls. £30
Calcutta, 2 6
Colombo, 50 48
Durban, 10 cks. 100 dms 23
Norrkoping 50 43
Pt. Elizabeth, 20 9
Singapore, 10 15
Toluol
Boulogne, 50 cks £142
Rotterdam, 75 261

Copper Sulphate—
Colombo, 2 t. 15 c. £66
Paris, 4 18 116
Seville, 1 2 27

Cream of Tartar—
Auckland, 4 cks £85
Dunedin, 2 t. 10 c. 190
Melbourne, 1 78
Rockhampton, 10 40
Wellington, 1 14 130

Disinfectants—
Auckland 7 pks. £16
Brisbane 27 cs. 40
Canterbury, 8 13
Cape Town, 40 cks. 60 82
Durban, 7 28
Hamburg 75 10 317
Lyttelton 6 11
Melbourne, 1 t. 2 95
Sydney, 20 56

Guano—
Almeria, 140 t. £1,120
Barbadoes 40 200

Manure—
Durban 121 t. 8 c. £1,439
Jersey, 19 8 1,133
Malaga, 8 10 82
Melbourne, 76 12 395
Teneriffe, 5 1 25

Muriatic Acid—
Shanghai, 5 t. 19 c. £24

Oxalic Acid—
Sydney, 1 t. 5 c. £36

Phosphoric Acid—
Durban, 15 cks. £5 4

Potash—
Alexandria, 2 cks. £12
Bordeaux, 2 cs. 11
B. Ayres, 3 kgs 5
Reval, 6 t. 420

Potassium Cyanide—
Auckland, 15 t. £1,566
Burdaberg, 1 112
Charters Towers 4 16 c. 1,621
Fremantle, 8 359
Madras, 4 25
Rockhampton, 2 220

Potassium Prussiate—
Antwerp, 10 c. £36
Melbourne, 5 17
Naples, 1 ck. 18
St. Petersburg, 5 112

Potassium Sulphate—
Barbadoes, 8 t. 8 c. £87

Salammoniac—
Bourgas, 1 t. £31
Mersyne, 14 c. 24
Salonica, 2 6 79

Salt Cake—
Ghent, 70 t. £96

Saltpetre—
Corunna. 2 t. £39
Napier, 13 c. 12
Oporto, 43 9 829
Rio de Janeiro, 7 3 130
Sydney, 60 brls. 64
Wellington, 1 15 35

Sheep Dip—
Galveston, 950 cs. £1,183
Hobart, 250 dms. 125
Lyttelton, 1 t. 11 c. 79
Napier, 1 12 41
Punta Arenas, 132 100

Soda—
B. Ayres, 2 c £5
Melbourne, 6 21
Rotterdam, 5 t 9 30

Soda Crystals—
Colombo, 1 t. 13 c. £6

Sodium Bicarbonate—
B. Ayres, 11 c. £6
Singapore. 13 6

Sodium Prussiate—
Reval, 5 t. £330

Sodium Sulphite—
Melbourne, 1 t. 2 c. £36

Sulphur—
Shanghai, 1 t. £7
Trinidad, 9 53

Sulphuric Acid—
Colombo, 1 t. 16 c £ 9
Durban. 15 cs 27
Melbourne, 9 12 60
Trinidad, 2 3 21
Wellington, 10 16

Tartaric Acid—
Auckland, 2 c. £10
Brisbane. 5 27
Hamburg, 1 t 111
Hiogo, 5 27
Napier, 2 11
Rockhampton, 3 16
Sydney, 1 111
Wellington, 9 50
Yokohama, 1 105

LIVERPOOL.

Week ending December 6th.

Ammonia—
Iquique, 1 c. 1 q. £6

Ammonium Carbonate—
Barcelona, 1 t. 1 c. £32
Naples, 8 10
Portland, M., 10 12

Ammonium Chlorate—
Rio de Janeiro, 1 t. 9 c. 2 q £40

Ammonium Muriate—
Genoa, 11 t. 1 c. 1 q. £248
Melbourne, 3 1 63

Ammonium Sulphate—
Almeria, 43 t. 12 c. 3 q. £495
Bordeaux. 21 16 1 229
Gandia, 50 628
Gijon, 10 123
Gd. Canary, 6 6 73
Las Palmas, 5 57
Teneriffe, 4 41
Valencia, 262 13 3 3.073

Antimony Sulphide—
Boston, 8 c. 2 q. £66

Arsenic—
Marseilles, 5 t. 3 c. 2 q £1 0

Basic Slag—
Bordeaux, 663 t. £991
Cape Town, 25 4

Bleaching Powder—
Amsterdam, 194 cks.
Antwerp, 32
Bilbao, 104
Bombay, 20 cs.
Boston, 204
Cleveland, 20
Genoa, 212
Ghent. 72 pks
Maranham, 6
Milwaukee, 243
Naples, 38
New York, 229
Oporto, 20
Rio de Janeiro, 15
Rotterdam, 32
Spring Grove, 197
Vercelli, 110

Boracic Acid—
Hamburg, 2 t. 16 c. 2 q. £74

Borax—
Antwerp, 3 t. 9 c. £57
Auckland, 1 16
Cardenas, 10 8
Guayaquil, 12 14
Hamburg 11 3 1 q 118
Havana 1 9 22
Johannesburg, 20 cs. 40
Stockholm, 8 144
Valparaiso, 6 c. 1 13

Calcium Chloride
Beira. 5 t. 3 c. £11
Mossel Bay, 4 9
Odessa, 35 1 77
Rangoon, 4 19 10
Sydney, 19 16 49
Wellington, N.Z., 2 1 5

Caustic Potash—
Dunedin, 2 t. 12 c. £18

Caustic Soda—
Adelaide. 52 dms.
Alexandria, 99
Alicante, 70 pks.
Amsterdam, 85
Barcelona, 555 10 cks 20
Bilbao, 55
Bombay, 100
B. Ayres, 80
Calcutta, 257
Cartagena, 40
Caxias, 10
Dunedin, 58
Galveston, 40
Genoa, 512
Callao, 70
Halifax, 35
Hamburg, 95
Havana, 135
Hiogo. 516
Leghorn, 148
Madras, 20
Malaga, 30
Melbourne, 60
Messina, 95
Naples, 60
Newcastle, 30
New York, 150
Odessa, 200
Osaka, 100
Otago, 18
Para, 45
Pernambuco, 250
Pt. Credit, Ont., 40
Puerto Cabello, 8
Rangoon, 14
Rio de Janeiro, 46
Rotterdam, 35
San Sebastian, 60
Santos, 36
Sarnia, 50
Seville, 403
Singapore, 16
Sydney, 191
Tarragona, 30

Trieste, 48
Valdavia, 75
Valencia, 50
Venice, 30
Vera Cruz, 25
Vigo, 30
Wellington, 65
Yokohama, 50
Woodstock, 20

Chalk—
St. John's, Nfd., 10 cks.

Chemicals (*otherwise undescribed*)

Alexandretta,	1 t.	5 c.		£40
Alexandria,	7			35
Bordeaux,	1		7 cks.	54
Chanaral,			2 q.	5
Madras,		2		10
Melbourne,	7		1	36
Odessa,	3			96
Patras,		1 brl.		7
Philadelphia,	13	18 c.		354
San Juan,		16	2	12
Syra,	12	1		57
Volo, 1 ck.	4	1	2	28

China Clay—
Bombay, 80 cks.
Boston, 289
Genoa, 1,010 bgs.
Johnsonburg, 168
Newport News 200
New York, 274 t.
Portland, 435
Rio de Janeiro, 27 18 c.
Santos 1
Sydney, 10

Choride of Lime—
Shanghai, 2 t. 10 c. £20

Citric Acid—
Manila 1 c. £8
Rio de Janeiro, 11 2 q. 81

Coal Produc s
Aniline Colours
Barcelona, 1 cs.
New York, 32 cks.
Aniline Salt
New York, 8 cks.
Piræus, 15 brls.
Benzine
St. John's, 1 cs.
Carbolic Acid
Antwerp, 23 t. 19 c. £1,295
M. Video, 5 2 q 28
New York, 14 20 cks. 2 842
Odessa, 6 c. 2 24
Portland, M., 2 1 24
Sydney, 11 24
Yokohama, 6 4 304
Creosote Oil
San Francisco, 1,000 brls.
Naphthol
Barcelona, 1 ck.
Tar
Guayaquil, 50 pks.

Copperas—
Bombay, 1 t. 3 c. £16
Syra, 8 14

Copper Sulphate—
Almeria, 3 t. 9 c. 3 q. £124
Bombay, 10 242
Bordeaux, 155 15 3 3,674
Calcutta, 2 0 62
Catania, 31 3 3 779
Genoa, 22 6 2 493
Halifax, 9 2 12
Melbourne, 9 2 12
Odessa, 21 17 3 519
Tampico, 10 2 10
Vigo, 42 18 2 1,038

Disinfectants—
Antwerp, 2 c. 1 q. £4
Dunedin, 8 1 14
Para, 2 7
Rio de Janeiro, 6 cs. 18
Sydney, 6 t. 11 c. 1 40

Glycerine—
Barcelona, 3 c. 2 q. £12
Hamburg, 2 6
Hong Kong, 2 6
Lisbon, 1 t. 42
New York, 10 1 380
Piræus, 17 8 2 663
Valparaiso, 4 14 244

Guano—
Malaga, 19 t 13 c. £150
Teneriffe, 1 8

Iron Sulphate—
Almeria, 2 t. £5

Magnesia—
B. Ayres, 12 cs.
Canada, 1
M. Video, 5 cks.
Valparaiso, 4

Manure—
Bordeaux, 9 t. 4 c. £32
Manila, 22 12 127
Seville, 9 16 66

Oxalic Acid—
Newport News, 17 t. 10 c. £150

Paint—
Antofagasta, 64 cs.
B. Ayres, 3
Calcutta, 213
Cienfuegos, 8 cks.
Havana, 14
Kobe, 150 dms.
Lisbon, 36
Manaos, 29
Manila, 175 kgs. 20
Para, 50 22
Perim, 3
Pernambuco, 4
Ponce, 11
Pt. Said, 1 cs.
Pt Natal, 15 cks.
Rio de Janeiro, 16
Sagua la Grande, 9
St. John's, Nfd., 2
San Juan del Sur 35
Santiago de Cuba, 1
Sierra Leone, 357
Talcahuano, 1 cs.
Valparaiso, 249 25 brls.

Painters Colours—
Bereby, 29 cks.
Beyrout, 76 pks.
Chicago, 101 brls.
Genoa, 28
Gijon, 4
Newport News, 210
Para 25 kgs. 9

Paraffin Wax—
Constantinople, 50 bgs.
Corfu, 5
Genoa, 1 ck.
Lisbon, 32 bgs.
Naples, 100
Palermo, 5
Para, 1 cs.
Pernambuco, 10
Valparaiso, 200

Phosphorus—
B. Ayres, 11 c. £75
Kobe, 10 75
M. Video, 8 45
Shanghai 10 cs. 80

Phosphorus (Amorph.)—
Hiogo, 65 cs. £563

Potassium Bichromate—
Osaka 6 t. 10 c. 1 q. £213

Potassium Chlorate—
Antwerp, 1 t. £30
Copenhagen, 5 152
Kalmar, 2 60
Naples, 1 30
New York, 5 150
Para 2 c. 7
Paranagua 7 4 220
Palermo, 1 19 61
Rio de Janeiro, 4 18 153
Sydney, 10 10 321
Tampico 9 14
Vera Cruz, 2 61

Potassium Nitrate—
Mollendo, 10 c. 3 q. £19

Potassium Prussiate—
Genoa 19 c. 2 q. £71

Salammoniac—
Genoa, 4 cks. £40
Patras, 9 c. 18
Piræus, 9 17
Philadelphia, 10 189
Trieste, 1 t. 31

Salt—
Abonnema, 20 t.
Adelaide, 39 17 c.
Antwerp, 400
Bakana, 20
Baltimore, 110
Barbadoes, 66
Benin, 87 18
Bereby, 6 4
Brass 15
Brisbane, 2 7
Brussels, 3 14
B. Ayres, 104
Burutu, 517 5
Calcutta, 799 3
Cameroons, 29 9
Carlton, 150
Christiania, 10
Conakry, 185 9
Ghent 325
Gd. Bassa, 25
Hamburg, 102 10
Illinois, 20
Kingston, Ja., 102
Melbourne, 241 10
Montreal, 305
Newcastle, 100
Newfairwater, 265
N. Orleans, 960
New York, 145
Old Calabar, 8
Para, 77
Portland, Me., 50
Punta Arenas, 2 15
Rio de Janeiro, 2 3
Rio Del Rey, 16
St. John, N.B., 100
Sapeli, 31 17
Sierra Leone, 109 3
Sydney, 84
Trinidad, 10 8 11 pns.

Salt Cake—
Antwerp, 120 t. £150
Philadelphia, 197 367

Saltpetre—
Cardenas 6 c. 3 q. £8
Maranham, 1 t. 4 27
Mollendo, 10 11
Para, 3 14 66

Sheep Dip—
B. Ayres, 27 t. 16 c. 3 q. £580
Calcutta, 60 dms. 30
Natal, 1 12 50
New York, 2 2 35
Sydney 1 3 15
Wellington, 10 8

Soap—
Addah, 100 cs.
Alexandria, 50
Algoa Bay, 690 bxs.
Amboina, 500
Amsterdam, 205
Antigua, 30
Antwerp, 27
Assinee, 100
Bakana, 250
Barbadoes, 600 812
Boma, 28
Bombay, 500
Boston, 25
B. Ayres, 5
Cairo, 40
Calcutta, 200 250 bdls.
Canaria, 460
C. C. Castle 2
Colon, 500
Conakry, 125
Genoa, 10
Georgetown, 20
Gibraltar, 450
Guadeloupe, 500
Hong Kong, 20 dms.
Kingston, 2,105
Kotonou, 60
La Libertad, 1
Malta 20
Manaos, 730
Manta, 200
Manila, 8
New York, 83
Old Calabar, 1,896
Para, 100 100
Ottawa, 500
Pt. Elizabeth, 500
Pt. Natal, 60 1 bdle.
Punta Arenas, 50
Quittah, 20
Rangoon, 40 3
Rio de Janeiro, 1
Rotterdam, 520
St. John, N.B., 400
St John's N'fd. 166
Salonica, 100
Sapeli 350
Sette Cama, 4
Shanghai, 13,624
Sierra Leone, 1
Singapore, 4,298
Surinam, 200
Sydney, 52
Toronto, 1,000
Trinidad, 2,250
Valparaiso, 3 cks.
Vancouver, 2
Warri, 300
Yloilo, 2

Soda Ash—
Adelaide, 230 cks.
Boston, 1,000 bgs.
Baltimore, 312 252 tcs.
Barcelona, 126
Bombay 75 kgs. 20
B. Ayres, 198
Calcutta, 600 250
Chicago, 17
Christiansand, 22
Copenhagen, 720 l gs.
Halifax, 10
Hiogo, 1,959
Kobe, 464
Maranham, 60 brls. 8
Melbourne, 446
M. Video, 50
Nagasaki, 20
New York, 2,684 122 tcs. 35
Pt. Natal, 3
Patras, 10 brls.
Philadelphia 400
Rio de Janeiro, 290 7
Rotterdam, 584
Schiedam, 1,334
Smyrna, 10
Tampico, 140
Vigo, 10
Volo, 10
Yokohama, 44
Zante, 117

Sodium Arseniate—
Rio de Janeiro, 9 cks.

Sodium Bicarbonate—
Adelaide, 190 kgs.
Amsterdam, 20
Antwerp, 9 cks.
Barbadoes, 4
Barcelona, 175
Bombay, 355 13
B. Ayres, 20
Calcutta, 450 8
Catania, 28
Corinto, 20 bgs.
Genoa, 5
Havana, 2
Hiogo, 900 kgs.
Madras, 40
M Video, 45
Odessa, 120 dms.
Oporto, 30
Pt. Natal, 50
Rotterdam, 15
Seville, 65 3 cks.
Trinidad, 30
Yokohama, 350

Sodium Chlorate—
Reval, 100 kgs.
Tampico, 2 cks.

Sodium Hyposulphite—
Naples, 20 brls.
Wellington, 20 kgs.

Sodium Tartrate—
M. Video, 10 cks. 20 brls.

Starch—
Iquitos, 20 cs.
Rio de Janeiro, 7 cks.

Sulphur—
Cardenas, 1 t. 5 c. 3 q. £20
Gothenburg, 25 [illegible]
Halifax 7 10 [illegible]
New York, 1 [illegible]
Para, 1 10 [illegible]
Sydney, 25 1 [illegible]

Sulphuric Acid—
Manaos, 16 c. £2
Maranham, 280 glns. [illegible]

Superphosphates—
Cullera, 525 t. £1,[illegible]
Valencia, 240 [illegible]

Tartaric Acid—
Guayaquil, 4 c. 3 q. £[illegible]
Iquique, 4 [illegible]

Varnish—
Barcelona, 6 cks.
Buffalo, 2
Gijon, 4
Lagos, 8 dms.
Manila, 4 cs.
Naples, 1
Rio de Janeiro. 2
San Juan del Sur, 2
Santander, 2
Sydney, 4

White Lead—
Manaos, 2 cks.
Pernambuco, 10
Pt. Natal, 2 0 kgs.
St. Croix, 5 cks.
Yloilo, 5

MANCHESTER.

Week ending December 6th.

Ammonium Sulphate—
Cette, 400 bgs.

Caustic Soda—
St. John, N.B., 50 dms.

Chemicals (*otherwise unenumerated*)
Antwerp, 15 kgs. 5 cs.
Hamburg, 6 / 2 cks.
Sydney, 8

Coal Products (*otherwise undes.*)—
Melbourne, 50 dms.
Coal Products—
Aniline Oil
Rotterdam 6 bls.
Naphthol Salts
Hamburg. 6 cks.
Naphthylamine
Germany, 87 cks.
Hamburg, 1
Pitch
Cette, 655 t. 18 c.
Ghent, 221 6 2 q.
Pyridine
Germany, 11 cks.
Toluol
Germany, 38 dms.
Colours—
Germany. 1 ck.
Gamma Acid—
Hamburg, { 10 bgs. 4 cks.
Glue—
Antwerp. 6 cks.
Germany, 11
Rotterdam. 24
Glycerine—
Hamburg, 7 crbys.
Salt—
Germany, 749 t.
Sodium Naphthionate—
France, 41 bgs.
Rotterdam, 15
Sulphur—
Chatham 187 bgs.
Hampton, N.B., 90
St. John, N.B., 1,324
Sulphuric Acid—
Rio de Janeiro, 17 cs.

HULL.

Week ending December 2nd.

Alkali—
Bergen, 2 cks.
Ammonium Sulphate—
Antwerp, 500 bgs.
Martinique, 1,224
Bleaching Powder—
Boston, 118 cks.
Caustic Soda—
Abo, 1 ck.
Riga, 150 dms.
Chemicals (*otherwise undescribed*)
Alexandria, 100 cks.
Amsterdam, 49 10 btls.
Antwerp, 27
Bergen, 1
Bremen, 17
Bombay, { 105 367 brls. 2 cs.
Christiania, 12 1,081 slbs.
Copenhagen, 4
Danzig, 17 75 pks.
Drontheim, 5
Gothenburg, 15
Hamburg, 23 35
Karachi, 150 366 brls.
Norrkoping, 11
New York, 220 10 cs
Reval, 35
Rotterdam, 5 61
Rouen, 37
Stavanger, 7 42 dms.
Stettin, 8 67 pks.
Coal Products—
Creosote
Alexandria, 100 cks.
Pitch
Antwerp, 376 t.
Bombay, 210 cks.
Rouen, 100 bgs.
Tar
Antwerp, 20 cks.
Christiania, 5
Copenhagen, 3
Dunkirk, 24
Rotterdam 21
Stockholm, 10
Cottonseed Oil—
Alexandria, 1 t. 10 c.
Amsterdam, 58 13
Antwerp. 11
Copenhagen, 15 4
Dunkirk, 55 14
Ghent, 5
Gothenburg, 2 11
Hamburg, 35 7
Konigsberg, 17
Norrkoping, 2
Rotterdam, 150 12
Rouen, 5
Glue—
New York, 65 bls.
Linseed Oil—
Alexandria, 1 t. 11 c.
Antwerp, 2 6
Bari. 1 14
Bergen, 7
Boston. 2 18
Christiania, 2 13
Copenhagen, 1 8
Ghert. 7
Pt. Said, 1 10
Rotterdam. 5 1
Stavanger, 8 16
Painters' Colours—
Amsterdam, 3 cks.
Antwerp, 20 1 cs. 160 pks.
Bombay, 907 99 210 dms.
Bremen, 20
Christiania. 5
Copenhagen, 10 1 3 pks.
Danzig, 10
Ghent, 4 40 dms.
Gothenburg, 5
Hamburg, 34
Hango. 2
Karachi, 40 6
New York, 355
Palermo, 8
Rotterdam, 3
Rouen, 5
Stettin, 28 3
Stockholm, 5 2
Potassium Muriate—
Martinique, 100 bgs.
Potassium Sulphate—
Martinique, 370 bgs.
Saltpetre—
Martinique, 130 bgs.
Soap—
Antwerp. 11 cs.
Drontheim, 25
Gothenburg, 1
Sodium Nitrate—
Martinique, 340 bgs.
Tallow—
Antwerp. 18 cks.
Gothenburg, 5
Turpentine—
Bombay, 30 dms.
Varnish—
Bombay, 85 cks.
Hamburg, 1
Stettin, 18

GLASGOW.

Week ending December 7th.

Ammonium Carbonate—
Christiania, £32
Hamburg. 00
Ammonium Sulphate—
Barcelona, 30 t. 11 c.
Hamburg, 50 13
Rotterdam 101 6 2 q.
Boracic Acid—
Rotterdam, £41
Borax—
Rotterdam, £27
Coal Products—
Benzine
Bordeaux, £250 8s.
Benzol
Paris, £220
Creosote Oil
Bordeaux, £3 318
Naphtha
Bordeaux, £22 10s.
Pitch
Christiania, £25
Tar
Bombay, £10 10s.
Calcutta, 32 15
Colombo, 45 10
Madras, 12
Rangoon, 177
Riga, 124
Cottonseed Oil—
Christiania, 4 t. 3 c.
Dextrine—
U.S.A., £153
Dyestuffs—
Extract
Canada, £166
Farina—
Amsterdam, 10 t. 6 c.
Gelatine—
U.S.A., £197
Iodine—
Rotterdam, £1,795
Lead Nitrate—
Paris, 10 t. 13 c. 1 q.
Lead Sulphate—
U.S.A., 7 t. 13 c. 1 q.
Linseed Oil—
Havana, 36 t. 3 c.
Valparaiso 4 1 q.
Manganese—
Rotterdam £110
Nitric Acid—
Malaga, £40
Paint—
Bergen, 5 c. 2 q.
Bombay, £239
Rangoon, 36
Painters' Colours—
Cape Town, £104
Havana, 39 15s.
Malta. 43
Rangoon, 159
Paraffin Wax—
Amsterdam, 9 cks
Barcelona, £624
Cape Town, 254
Christiania, 4 c.
Malta, 3 t. 4
Spain, 391
Potassium Bichromate
Paris £798
Rouen, 295
Seville, 89
Potassium Cyanide—
Sydney, U.S.A., 25 t. £560
Potassium Sulphate—
Colombo. £91
Red Lead—
B. Ayres, £221
Sheep Dip—
B. Ayres, £435
Soap—
Bombay 2 t. 12 c.
Sodium Bichromate—
Rouen, 11 t. 9 c. 2 q.
Potassium Stannate—
Bombay, 9 c. 1 q.
Starch—
Rotterdam, £74
Strontium Nitrate—
Calcutta. £40
Sulphuric Acid—
Madras, £232
Rangoon, 337
Tallow—
San Sebastian, 2 t. 2 c.
Tar Oil—
Rouen, £30
White Lead—
Guayaquil, £105

TYNE.

Week ending December 2nd.

Alkali—
Amsterdam, 19 t. 13 c.
Ammonia—
Halmstadt, 1 t.
Ammonium Carbonate—
Stockholm. 1 t
Ammonium Muriate—
Stockholm, 4 t. 15 c. 1 q.
Ammonium Sulphate—
Aalborg, 5 t.
Antimony—
Stockholm, 3 t.
Arsenic—
Rotterdam, 19 c.
Barium Binoxide—
Rotterdam. 11 t. 13 c.
Barium Carbonate—
Hamburg, 10 t. 2 c. 2 q.
Barytes—
Antwerp, 10 c.
Bleaching Powder—
Aalborg, 3 t. 18 c. 1 q.
Amsterdam, 8 11 1
Bergen, 9 1
Christiania, 41 13
Copenhagen, 5 19
Gothenburg, 25 5 1
Hamburg, 4 19 3
Oporto, 10 2
Rotterdam, 7 17 3
Stockholm, 5 3 1
Caustic Soda—
Aalborg, 61 t. 1 c. 3 q.
Antwerp, 4 18 2
Christiania, 2 18
Copenhagen, 4 18 2
Gothenburg, 4 18 2
Hamburg, 11 7 1
Stockholm, 15 13 3
Litharge—
Copenhagen, 12 c. 1 q.
Hamburg, 3 t. 12
Stockholm, 15 cks.
Magnesia—
Aalborg. 6 c. 3 q.
Antwerp, 16 2
Hamburg, 15 3
Paint—
Christiania, 6 c.
Copenhagen, 5
Hamburg, 1 t.
Painters' Colours—
Antwerp. 10 c.
Pearl Hardening—
Copenhagen, 1 t. 2 c. 1 q.
Pitch Oil—
Bergen, 15 brls.
Red Lead—
Bergen, 8 cks.
Bordeaux, 5 t. 6 c. 2 q.
Christiania. 1 1 1
Copenhagen, 2 5
Hamburg, 21 6 1
Oporto. 1 2
Savona, 4 1
Stockholm, 106 cks.
Saltpetre—
Aarhuus, 5 t. 6 c. 1 q.
Slag—
Rotterdam, 123 t.
Soda—
Amsterdam, 30 t. 4 c. 1 q.
Rotterdam 19
Sodium Silicate—
Christiania, 3 t. 1 q.
Sodium Sulphate—
Antwerp. 60 t. 6 c.
Rotterdam, 29 19
Sulphur—
Drammen, 80 t.
Gothenburg, 40
White Lead—
Copenhagen, 2 t. 2 c. 1 q.

GOOLE.

Week ending November 29th.

Chemicals (*otherwise unaescribed*)
Antwerp. 4 cks.
Boulogne, 13
Ghent, 2 cs.
Hamburg. 14 dms. 9 pks
Coal Products (*otherwise unaes.*)—
Amsterdam, 87 cks.
Antwerp, 6 10 cs
Boulogne, 16
Ghent, 1
Hamburg, 5 1
Rotterdam. 1
Coal Products—
Pitch
Antwerp, 751 t.
Dyestuffs (*otherwise undescribed*)
Rotterdam, 33 cks. 2 cs.
Manure—
Antwerp, 179 bgs.
Painters' Colours
Boulogne, 3 cks. 1 cs.
Ghent, 1
Rotterdam, 17 4

GRIMSBY.

Week ending December 2nd.

Chemicals (*otherwise unaescribed*)
Dieppe, 2 kgs.
Coal Products (*otherwise undes.*)—
Dieppe, 60 cks. 6 pks.
Hamburg, 30 btls
Rotterdam, 24 brls.
Painters' Colours—
Antwerp. 2 cks 2 cs.
Hamburg, 2 2 pks,
Rotterdam. { 3 kgs. 2 cks.

PRICES CURRENT.

WEDNESDAY, Dec. 13, 189

PREPARED BY MESSRS. HIGGINBOTTOM AND CO., 116, PORTLAND STREET, MANCHESTER.

The values stated are F.O.R. *at maker's works, or at usual ports of shipment in U.K. The price in different localities may v*

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	7/-	&	9/3
,, Glacial .. .. ,,		35/-	
Arsenic S.G. 2,000° .. .. ,,	1	2	6
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	1	2
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2½
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	10	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb	0	1	2
,, ·880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¾
,, Muriate .. .. per ton	24	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/-	&	38/-
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	11	6	3
,, ,, (grey) Hull .. .. ,,	11	6	3
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4¾
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	6	12	6
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/-	to	60/-
Bleaching Powder, 35 % .. .. nett ,,	6	0	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	10	0
China Clay (at Runcorn) in bulk .. .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	8½
,, 50/90 ,, ... ,,	0	0	10½
Carbolic Acid (crude 60°) .. .. ,,	0	2	10
,, (crystallised 40°) .. .. per lb.	0	0	10½
,, (liquid 95/97%) .. .. .. per gallon	0	1	3
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	11	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	4
Copper .. .. per ton	72	17	6
,, Sulphate .. .. ,,	24	17	6
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	32	0	0
,, (distilled S.G. 1260°) .. .. ,,	51	10	0
Iodine .. .. nett, per oz.	0	7	½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	19	0	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	24	0	0
,, ,, (brown ,,) .. .. ,,	20	0	0
,, Carbonate (white lead) pure .. .. .. ,,	24	0	0
,, Nitrate .. .. ,,	25	0	0

	£	s.
Lime, Acetate (brown) (ex ship) .. .. .. per ton	6	5
,, ,, (grey) (ex ship) .. .. ,,	9	0
Magnesium (ribbon and wire) .. .. per oz.	0	2
,, Chloride (ex ship) .. .. per ton	3	0
,, Carbonate .. .. per cwt.	1	17
,, Calcined Magnesia .. .. per ton	13	10
,, Sulphate (Epsom Salts) .. .. .. per ton	3	5
Manganese, Sulphate .. .. ,,	14	15
,, Borate .. .. per cwt.	2	0
,, Ore, 70% .. .. per ton	3	10
Methylated Spirit, 61° O.P .. .. per gallon	0	2
Naphtha (Wood), Solvent .. .. ,,	0	2
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3
Oils:—		
Cotton-seed .. .. per ton	19	10
Linseed .. .. ,,	24	0
Stearine .. .. ,,	27	0
Phosphorus (Yellow) .. .. per lb.	0	1
,, (red) .. .. ,,	0	2
Potassium Bichromate .. .. nett ,,	0	0
,, Carbonate, 90% (ex ship) .. .. .. per ton	18	10
,, Chlorate .. .. per lb.	0	0
,, Cyanide, 98 % .. .. ,,	0	1
,, Hydrate (Caustic Potash) 90 % .. .. per ton	25	10
,, ,, ,, 75/80 % .. ,,	22	0
,, Potash Hydrate Liquid 50 % .. .. ,,	13	10
,, Nitrate (refined) .. .. ,,	21	5
,, Permanganate .. .. per cwt.	2	12
,, Prussiate Yellow .. .. per lb.	0	0
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15
,, Muriate, 80 % ,, ... ,,	9	0
Silver (metal) .. .. per oz	0	2
Sodium (metal) .. .. per lb.	0	2
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. works, 10 ton lots)	4	15
,, ,, (Caustic Soda-ash) 48 % .. ,, ,,	4	5
,, ,, (Carb. Soda-ash) 48 % .. ,, ,,	4	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,,	4	7
,, ,, (Soda Crystals) .. .. .. ,, ,,	2	15
,, Acetate (ex-ship) .. .. ,,	14	0
,, Arseniate, 45 % .. .. ,,	13	10
,, Chlorate .. .. per lb.	0	0
,, Borate (Borax) .. .. nett per ton	16	0
,, Bichromate .. .. per lb.	0	0
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton	9	15
,, ,, (74 % Caustic Soda) ,, ,, ,,	9	10
,, ,, (70 % Caustic Soda) ,, ,, ,,	9	0
,, ,, (60 % Caustic Soda) .. ,, ,,	8	0
,, ,, (pure liquor 90° Tw.) .. ,, ,,	4	10
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15
,, Hyposulphite .. .. ,,	6	5
,, Manganate, 25 % .. .. ,,	15	10
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7
,, Nitrite, 98 % .. .. per ton	26	0
,, Phosphate .. .. ,,	10	10
,, Prussiate .. .. per lb.	0	0
,, Silicate (glass) .. .. per ton	4	10
,, ,, (liquid, 100°Tw.) .. .. .. ,,	3	10
,, Stannate, 40 % .. .. per cwt.	3	10
,, Sulphate (Salt-cake) .. .. per ton	1	6
,, ,, (Glauber's Salts) .. .. .. ,,	1	10
,, Sulphide (crystals) .. .. ,,	6	10
,, Sulphite .. .. ,,	5	15
Strontium Hydrate, 100 % .. .. ,,	9	10
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0
,, Barium, 95 % .. .. ,,	0	0
,, Potassium .. .. ,,	0	0
Sulphur (Flowers) .. .. per ton	7	5
,, (Roll Brimstone) .. .. ,,	6	2
,, Brimstone: Best quality .. .. ,,	4	12
Superphosphate of Lime (26 %) .. .. ,,	2	10
Tallow .. .. ,,	28	0
Tin Crystals .. .. per lb.	0	0
,, English Ingots .. .. per ton	127	0
Zinc (Spelter) .. .. ,,	20	7
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10
,, Sulphate, Crystal .. .. ,,	7	10

THE

CHEMICAL TRADE JOURNAL

AND

OIL, PAINT and COLOUR REVIEW.

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Communications for the Editor, if intended for insertion in the current week's issue, should reach the office not later than **Tuesday morning.**

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Advertisements intended or insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

CURRENT TOPICS.

THE PROSPECTS OF SODIUM NITRATE.

"THE times are bad," the old man said; and he must have had something to do with the nitrate industry, we think. In general chemicals, things are on the mend, but there are a few exceptions, and nitrate of soda is one of them.

It is not encouraging to trade for years, only to build up a debit balance of £27,699. To many, such a record would seem to indicate the permanent decline of the nitrate industry, especially as sulphate of ammonia is taking the field so strongly and successfully as an opponent; but we do not believe that such a hopeless aspect of the future can be justly taken.

It is evident from the returns of companies like the Liverpool Nitrate Co. and the Lautaro, that declare dividends, and the St. Elena and Colorado companies, that pay their way and make a small profit, even under the adverse circumstances of the moment—we repeat it is evident that the future is capable of better things, and reports like that of the New Tamarugal Co. will not always be the order of the day.

It has been made clear during the past few weeks that all the long-deferred hopes of a Combine are doomed to disappointment. This being so, we suppose it will not be long before the pitiful task of weeding out of existence the weak or worthless companies will be commenced. We have frequently referred to the time when this separation of the tares would have to come, and often as we have apprehended its arrival, now that it has almost come we hope the operation will be carried through with precision and celerity.

"ACCIDENTAL" STRYCHNINE POISONING.

This week two most regrettable fatalities occurred in the Crumpsall Workhouse Hospital through the "accidental" dispensing of strychnine, in medicines for the patients, instead of spirits of nitrous ether. Several patients, besides the two who succumbed, suffered from strychnine poisoning, and had not the assistant resident surgeon exercised the wisest discretion and judgment in stopping the administration of all the other medicines dispensed on the same day as those which proved fatal, the consequences would have been even more serious.

Mistakes will occur, accidents will happen, and misfortune sooner or later overtakes the most methodical of dispensers; but the misfortune, the accident, or the mistake is usually of minor significance, which serves as a lifelong warning and reminder to rigorously exclude every possible risk of mishap with poisons. This is not the first fatal result of lax organisation that has occurred at this hospital, for we dealt with another case not many months ago. At that time we commented upon the use of the word accident. This time misadventure has been substituted, presumably to make a change without a difference.

The circumstances were simple. The dispensing bottle was filled up from the wrong stock bottle by one of three—the dispenser, his qualified assistant, or the junior assistant. When the dispenser challenged the junior, he denied filling the bottle, and gave reasons why he would not have occasion to do so. The senior assistant adds to this the admission that "I must have done it . . . I do not remember doing it." No one dispensed any medicines (save one bottle of food) on the day of the fatalities except the senior assistant, and strychnine liquor is found to have been substituted for spirits of nitrous ether in nearly all the medicines that should have had the latter in. The poisons were not kept apart or in special bottles with the exception of a red label, and neither the prescriptions nor the bottles of medicine that proved fatal were initialled by the person who dispensed them. Yet the verdict of the coroner's jury was "death through misadventure;" as, owing to the lax system which obtained in the dispensary, the jury "were unable to fix the blame on any individual."

Truly, this senior qualified assistant fared better than those "irresponsible" gentlemen, who have to face the Council of the Pharmaceutical Society for practising as pharmacists, when they are not fully fleeced sheep of the flock.

Before the Major is made to confer the title of analytical chemist as well as pharmacist, qualified men will do well to practice the nasal test as a guide in dispensing strychnine liquor *vice* spirits of sweet nitre.

THE PROSECUTION OF CHEMICAL MANUFACTURERS.

FINES—SUMMONS DISMISSED

THE stipendiary magistrate, Mr. F. J. Headlam, gave his decisions on Thursday morning at the Manchester City Police Court, in the cases brought by the Manchester Corporation (Sanitary Department) against Messrs. Hamor, Lockwood and Co., and Messrs. Hardman and Holden, Ltd., chemical manufacturers at Miles Platting, for having allowed noxious fumes to be emitted from their works, so as to cause a public nuisance. The first named firm have works in Vickers Street and Philips Park Road, and Messrs. Hardman and Holden have an oxide works in Canal Street, and a tar distillery in Varley Street.

Mr. Headlam said he understood the difficulty there had been in ascertaining definitely from whence the nuisance arose, the works of the two defendants being in such close proximity. He was of opinion, however, that the evidence exonerated the firm of Hardman and Holden, and the summonses against them would be dismissed. He was of opinion, after considering the evidence, that the smells arose from Messrs. Hamor Lockwood and Company's works, the evidence offered on behalf of this firm as to the manner in which they carried on their business not being so satisfactory. He should therefore fine them £5. and costs in two cases.

Obituary.—*David Watson, D.Sc.*—We regret having to announce the death of Dr Watson, the amiable and painstaking chairman of the Manchester section of the Society of Chemical Industry, after a long and painful illness. He passed away on Friday, the 15th inst., deeply regretted by all who knew him.

THE URUGUAYAN WOOL CLIP.—The following table, compiled from authentic sources in the wool trade, shows the wool crop for the seasons named, and the average prices paid per ten kilos:—

Season.	1,000 kilos.	Average price.	Season.	1,000 kilos.	Average price.
1894-95	39,157	$2.17	1898-99	46,400	$2.63
1895-96	50,765	1.90	1899-1900 (estimate)	44,000	5 37
1896-97	42,850	2.54			
1897 98	51,678	2.27			

The prices given are for mestizo (half-breed) fleece wool, and the total production includes the *criolla* (native) and belly wool. The fluctuations in price are remarkable. The price for the present season's clip, as so far sold, makes the phenomenal high average of $5 37 per ten kilos, or exactly double the average of last season. Thus, the present clip, although below the average in quantity, will bring in twice the amount of cash ever yet reached, a prospect that is greatly delighting the hearts of sheep farmers.

Correspondence.

***We do not hold ourselves responsible for the opinions expressed by our correspondents.*

PLURALISTS IN CHEMICAL APPOINTMENTS

(To the Editor of the Chemical Trade Journal.)

SIR,—I am not quite sure that Mr. William Ackroyd has fully made out a case against what I wrote in my last letter on this subject. I for one should be very pleased to accept the post he quotes at the salary named, as I consider that a good one for the work to be done; and as a public analyst under the Food and Drugs Act would be glad to receive half-a-guinea per sample for all I could do. As a matter of fact, the public analysts of large towns don't get that amount.

However, we know that there are public appointments and public appointments; there are some with but little pay and little work, of which one man might hold a dozen and yet be able to perform satisfactorily all the duties of such offices. There are others, however, connected with our most important towns which are not sinecures by any means, and are fairly remunerative ones, and any one of which would be sufficient to find plenty of work for one man to do with justice to himself and his clients. Unfortunately, one finds that such public analysts are not content, but must seek more, and the consequence is that the work becomes too much for them, and they have to relegate it to underpaid assistants. From a legal point of view this relegation of the work was not contemplated by the Sales of Food and Drugs Act, and it is quite sufficient to quash a prosecution if it can be shown that the public analyst has not done the work himself. Such a circumstance recently occurred in a London police court. There is another point in connection with this matter. It is important in many cases, particularly with milks, that the samples should reach the analyst as quickly as possible; but consider the time required to send a sample from Lincolnshire to London! It is obvious that the sample does not reach the analyst as fresh as it ought to do. I might add more instances, but I think this letter quite long enough as it is.

I am, etc.,

CHEMIST.

INDIAN COAL.

THE official report of the Indian Section of the Imperial Institute has just been issued as a Parliamentary return. It is a volume of 160 pages, and it contains a report of several pages on the coalfields of India, prepared by Professor W. R. Dunstan, F.R.S., director of the Scientific Department. In the course of it he states that coal is widely distributed throughout India, except in Bombay and Sind, the North-West provinces and Oudh, Rajputana, and Mysore, where the mineral is either scantily distributed or entirely absent. Many of the coalfields have not been fully explored, and only a small proportion of the total known coal area is at present worked. The seams in Bengal and Assam are frequently from 50ft. and 80ft. to as much as 180ft. in thickness. The pits are often of considerable depth; at present the deepest appears to be about 700ft. In many cases the working of the seams leads to the escape of little or no fire-damp, so that the miners are able to work with naked lights. In 1895, 235 collieries were at work, but in 1896 only 172 were in active operation. At the present time Bengal produces more than three-fourths of the coal mined in India. The results obtained in his examination are given in tables appended to the report, the various samples of coal being arranged under the provinces from which they were obtained. It appears that Indian coal varies much in composition and quality. Most of it is quite suitable for ordinary purposes, while some of the samples—*e.g.*, certain of those from Bengal and Central India, are of excellent quality, equal to that of some of the best British coals. Though the coal in Bengal varies greatly in quality, much of it is excellent, the fixed carbon ranging between 50% and 60%, and the calorific value exceeding 6,000 cals. (= about 10 British thermal units), while the ash often does not much exceed, and in some instances falls below, 10%, and the sulphur is frequently present in but very small proportion. A great deal of the Bengal coal is serviceable steam-coal. Many samples cake well and contain little sulphur, and the coke is, therefore, suitable for iron smelting. Professor Dunstan concludes his report by stating that the information contained in it, as to the coal deposits of India, together with the results of the analyses of samples taken from some of the principal seams, will, it is hoped, be the means of directing attention to the possibilities of industrial enterprise which India offers through her enormous coal supply, and that samples of the coal referred to, and in some cases of the cokes furnished by them, may be seen in the Indian collections of the Imperial Institute.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Chambers for Drying Wood and Impregnating with Gaseous Fumes. T. A. Hearson. 24,070. December 4.

Extraction and Recovery of Zinc from Sulphide Ores. J. Gitsham. 24,135. December 4.

Improved Filter Press W. Sommer. 24,146. December 4.

Combustible Composition for Matches. H. Suschny. 24,147. Dec. 4.

Electric Furnaces for Making Glass. J. Luhne. 24,148. December 4.

Anode or other Electrode for Use in Electrolysis. I. L. Roberts. 24,230. December 5.

Soap Presses. J. J. Forster and R. L. Murdock. 24,235. December 5.

Bleaching Paper, Wood-pulp, Straw, or Peat. J. C. Butterfield. 24,275. December 6.

Improvements in Evaporating Apparatus. H. H. Lake. 24,306. Dec. 6.

Manufacture and Purification of Alkaline Cyanides. T. Wilton. 24,307. December 6.

Preventing the Spontaneous Combustion of Coal in Ships. R. Threlfall. 24,353. December 7.

Apparatus for Washing and Scrubbing Gas. S. Chandler. 24,383. Dec. 7.

Improvements in High Pressure Filters. J. H. Topham. 24,410. Dec. 8.

Storage Batteries. H. H. Lake. 24,451. December 8.

Improvements in the Treatment of Ores. S. Ganelin. 24,469. Dec. 8.

Improvements in Evaporating Apparatus. M. L. Dunham. 24,487. December 9.

Improvements in Gas Producers. R. Thomson. 24,502. December 9.

Improvements in Cleansing Compositions J. Foster. 24,532. Dec. 9.

Tar Paint. T. Moller. 24,534. December 9.

Apparatus for Use in the Manufacture of Gun-cotton an Soluble Nitro-cellulose. L. Morane. 24,561. December 9.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

These abstracts are specially prepared for the Chemical Trade Journal, and ALL RIGHTS *of publication are* RESERVED. *This is the earliest series of abstracts of Chemical and allied patents accessible to the public.*

Improved Process of Extracting Tannin from Leather, and Preparing the latter for Glue Making. R. Brauer, Lüneburg, Germany. Eng. Pat. 10,408. May 17, 1899.

The tannin is extracted from the leather by the action o ammonia, either in the liquid or the gaseous form. The leather is treated in a closed vessel (from which the air has been exhausted) under a pressure of 120 to 150 lbs. to the square inch, with sufficient water to yield a 40 to 50 per cent. solution of tannin. The ammonia is then driven off by heat, the remainder of the tannin washed out, and the leather treated with alkali preparatory to conversion into glue.

Method and Apparatus for Treating Solids with Gases, as in Decomposing certain Chlorides. P. Naef, No. 15, Third Avenue, New Brighton, New York, U.S.A. Eng. Pat. 17,852. August 19, 1898

When the heat necessary for a chemical reaction is not obtained by external heating, but through the gases essential to the reaction, it is often difficult to keep the temperature high enough without introducing drawbacks and complications. An apparatus is, therefore, suggested, consisting of revolving, inclined horizontal furnaces of the Cummer-drier type, through which the material to be treated is passed, while the gases are re-heated as they pass up from one furnace to another, the material descending by gravity. There is one figure.

A New or Improved Process for Producing Lime and Obtaining Carbonic Acid. H. C. Bull, 15, West Square, Lambeth; A. C. Oakes, 4, Rubigny Gardens, Putney; and T. M. Thom, 59, Lordship-lane, Wood Green. Eng. Pat. 24,643. November 22, 1898.

Limestone and carbonaceous fuel are charged into a kiln, from which all air is practically excluded. Oxygen, obtained by any commercial process, is then supplied to the bottom of the kiln. The gases, consisting mostly of carbon monoxide, are drawn off at a point above the charge of incandescent fuel and lin.estone, into a combustion chamber, in which enough additional oxygen is supplied, to convert the carbon monoxide into dioxide. The heat thus generated is used to raise steam for the compressor employed to liquefy the carbonic acid gas so produced.

Improvements Relating to the Process of Coking with the Recovery of Bye-products. R. Brunck, 14, Prinz Freidrich Carlstrasse, Dortmund, Prussia. Eng. Pat. 26,253. December 12, 1898.

There is one figure showing a form of pipe condenser and air supply heater. The distillation gases leave the ovens at about 600° C., and the combustion air supply being fed to the ovens is passed through the escaping hot gases, thus becoming heated, and also serving to partially condense the bye-products.

Process for the Manufacture of White Lead and the Recovery of Silver in said Process. A. C. J. Charlier, Masterton Works, Keppochill-road, Glasgow. Eng. Pat. 552. January 10, 1899.

If metallic lead is heated to below flaking point—say 800° F., in the presence of moist carbon dioxide, under constant agitation—a basic carbonate of lead volatilises, and is removed by suitable means to depositing chambers. In the case of silver lead, the temperature must not be allowed to reached the volatilisation point of silver. The heating pan must be air-tight, the carbon dioxide being introduced through tuyeres. The amount of hydrate of lead in the basic carbonate depends primarily upon the temperature. The silver accumulates at the bottom of the pot after working some time.

SOCIETY OF CHEMICAL INDUSTRY.

SCOTTISH SECTION.

THE third meeting of the session was held on the evening of Tuesday, December 19, in the Religious Institution Building, 200, Buchanan-street, Glasgow. The attendance was very good, considering the weather that afternoon had assumed a very uninviting character, with a heavy and continuous rainfall. Professor G. G. Henderson, the chairman of the section, opened the proceedings by a very feeling reference to the loss they had sustained in the death of Mr. E. C. C. Stanford. He and others present could well recall the circumstance, 15 years ago, when the Scottish section of the Society was being formed, how that the success of the new section was felt to be entirely assured immediately on it becoming known that Mr. Stanford had consented to the unanimous desire of the projectors that he should undertake the office of initiatory chairman. Mr. Stanford entered heart and soul into the advancement of the new section, and to him personally was due a large measure of the success which had attended its career. A man of original research, always, he, in papers read before the section, had given them of the best of his professional labours, and particularly as affecting that department within which what may be called the "life work" of their departed friend lay, namely, the industrial chemistry of sea-weeds, in which he effected a revival of the kelp industry of the north and north-west of Scotland, chiefly by means of his new process for the extraction of iodine. Indeed, it was to be safely asserted that the late Mr. Stanford, not in one way, but in many ways, stood as a "tower of strength" to the Society, and an individuality, therefore, that would be sorely missed. Members who had met Mr. Stanford casually, only, at such meetings as these, had insensibly learned to regard him with admiration and esteem, and even with affection; but they did not know—they could not know, how fully he was endowed with all those qualities of heart and mind, of generosity and disinterestedness which come into visible operation only by means of the intercourse of purely private friendship. He was sure that all present would heartily concur with him in the proposal with which he intended to close these remarks, namely, that their honorary secretary be desired to convey to Mrs. Stanford and family an expression of deepest sympathy with them in their bereavement, and at the same time of the high and enduring estimation in which Mr. Stanford has been held by the membership as a whole. This having been unanimously agreed to, the ordinary business of the meeting was gone on with, consisting of no paper of any length, but a number of short descriptions chiefly connected with experimental analysis. These included "The Cyanide Process at Yalwal," by Mr. Alfred Chiddy; "The Separation of Bismuth from Lead," and "The Analysis of Copper," by Dr. J. Clark, Glasgow; and "The Oxidation of Ammonia by Iron Ore," by Mr. W. Carrick Anderson, M.A., D.Sc., and Mr. George Lean. The authors of these were severally awarded votes of thanks, and the meeting broke up earlier than it sometimes does, no proper discussion having followed in the case of any of the papers read.

ANOTHER RUBBER SUBSTITUTE.—In a paper read recently before the London Section of the Society of Chemical Industry, Mr. W. F. Reid described a preparation of a drying oil, nitrated with strong nitric acid, with the addition of some nitro-cellulose, which makes a substitute for india-rubber and gutta-percha. This substance is called "velvril material." Among other applications of the material, the manufacture of flexible gas tubing is not the least important. Velvril tubing can be used for making the connections in extraction apparatus in which benzene or carbon disulphide is the solvent. In another form, the preparation can be made into a durable paint for protecting iron, which does not change. Velvril varnish paint dries through the evaporation of the solvent, and, so far as an experience of about four years shows, there is no perceptible oxidation.

Official Memoranda.

(From the Board of Trade Journal).

CANADIAN IRON INDUSTRY.

The Nova Scotia Steel Company has been selling Great Bell Island ore in Rotterdam at a price which amounted to 1 dol. 15 cents per ton at the mine, after deducting the cost of transportation, giving them a profit of 85 or 90 cents per ton, and it is said that the Dominion Iron and Steel Company have assurances that they can sell ore in Rotterdam for delivery next year at from 15 to 16 marks per ton, which would give them from 1 dol. 65 cents to 1 dol. 90 cents at the mine after paying the cost of mining and transportation, making the profit on every ton of ore mined for export from 1 dol. 35 cents to 1 dol 60 cents.

The company's works at Sydney, Cape Breton, are being erected at tidewater, with wharves, at which the largest steamers can tie up. There are to be four smelting furnaces, each with a minimum capacity of 250 tons a day. The steel works will be near the smelting furnaces, so that the molten iron can be transferred there and converted into steel without being allowed to cool. The steel plant will have a minimum capacity of 800 tons a day. The company will make its own coke for smelting, and immense ovens for this purpose are being built. These will be so constructed that the gas produced in the process will be utilised in the making of steel. One of the blast furnaces will, it is expected, be in operation by August of next year, and others will follow until the whole will be in operation by the autumn of 1901. The steel plant will be somewhat later in getting into operation, but the promoters expect to have the whole gigantic establishment in complete running order within three years from date

The demand for coal will be immense, and it will be supplied from the company's own mines in the immediate neighbourhood at a price lower, it is said, than it is possible for the Pittsburg iron men to secure their coal. The company owns seven mines at Sydney, capable of yielding 3,500,000 tons of coal annually.

The iron mines on Bell Island, in Conception Bay, are said to constitute a remarkable deposit of hematite iron. The island is practically a mass of iron, the veins running under the sea. The ore ledges are of most peculiar formation; they are in the shape of segregated cubes formed by cracks running transversely. No. 3 seam, which is now being worked, is 10 feet thick, 300 feet wide, and 3 miles long It is estimated that there are 28,000,000 tons of ore available on the island without following the seams under the sea.

THE EXPLOSIVES TRADE OF HAMBURG.

With regard to the export trade in gunpowder and dynamite, and other explosives (guncotton, carbonite, spiralite, and cordite) it appears that, whilst the annual value of the total shipments of gunpowder from Hamburg has been gradually increasing during the past three years, that of the total shipments of dynamite and other explosives has experienced a gradual diminution Nearly all of the explosives exported from this port are manufactured in this part of Germany. In the vicinity of Hamburg there are several large establishments for the manufacture of dynamite, various kinds of gunpowder, and other explosives.

Besides the exports of explosives by sea, considerable quantitities of these products are sent from the district to the interior of Germany, and also to Austria, by rail and river.

TARIFF CHANGES.

The following decisions of the Canadian Board of Customs have been approved by the Minister of Customs:—

Article.	Rate of Duty *Ad valorem.* Per cent.
Barilla Soap	35
Lithopone, "commercial zinc white"	5
"Charlton zinc white"	5
Antimonial lead in pigs—provided, however, in respect of any importation of the above article, that if it is established by analysis to contain over 12 per cent. of antimony, the importation shall be classed as babbit metal or type metal	15
Refrigerating plant, coils and condensers	30
Engine and compressor	25

DUTY ON LOGWOOD AND MAHOGANY.

The Board of Trade have received copy of an ordinance of the Government of British Honduras which reimposes the export duty of 50 cents per ton on logwood, which was abolished in 1897. By the same ordinance a new duty of 1 50 dol. per 1,000 superficial feet is imposed on mahogany exported from the colony.

THE SUGAR INDUSTRY OF RUSSIA.

There are at present in European Russia 268 sugar factories as compared with 242 last year; and the area under beet-roots is now 455,677 dessiatines (dessiatine = 2 7 acres) against 404,600 last year; the increase within the year is thus 10·7 per cent. in the number of factories, and 12·6 per cent. in the area under beet-root cultivation. The current year cannot, however, be considered very satisfactory, as on the 1st of July 8,312 dessiatines of the crop had been destroyed, whilst in the previous year only 2,915 dessiatines had been destroyed; in addition, 25,288 dessiatines were re-sown as compared with only 5,768 in 1898. This destruction of the crop was owing partly to storms and partly to the ravages of insects and fungi. As to the condition of the crops in 1899, 48·1 per cent. was reported good, 32·8 per cent. fair, 15·2 per cent. moderate, and 4·0 per cent. bad; the corresponding figures in 1898 were 55·7 per cent. good, 29·2 per cent. fair, 11·6 per cent. moderate, and 3·0 per cent. bad.

RUSSIAN PETROLEUM IN GERMANY.

A memorandum has been compiled by Dr. Zoepfl, of Nuremburg, under the direct supervision of the Russian Minister to Bavaria, with the object of furthering the importation of Russian petroleum into Germany. This paper gives elaborate information which it is thought may be of value to English petroleum companies in the Caucasus as to the comparative cost of production of American and Russian petroleum, and of freights to Germany. The author adduces statistics in support of his contention that while the cost of production of petrolum is less in the Caucasus than in the United States (the estimated cost of kerosine per poud being 29·93 copecks in Batoum and 35·62 in Philadelphia), the freight charges on petroleum from Batoum to Hamburg, estimated at 12 copecks per poud, are greater than from American ports (about 10½ copecks per poud), and strongly advocates the utilisation of the Danube route for the importation of Russian petroleum into Southern Germany. The different portions of the Danube route from its mouth to Passau and Ratisbon are discussed with considerable detail, and calculations are made as to the probable cost of freight from Batoum to Ratisbon in Bavaria, and of distribution thence to the principal centres of Germany.

The memorandum, in the original, may be seen by persons interested on application at the Commercial Intelligence Branch of the Board of Trade, 49 and 50, Parliament-street, S.W., on any day between the hours of 10 and 5.

TONKIN COAL.

The report of the French Consul General for France at Shanghai states that, in 1899, Tonkin exported to Shanghai 22,000 tons of coal, about the quantity produced by the Australian coalfields. The report adds that it is satisfactory to note that Tonkin coal has begun to find an outlet at Shanghai. The Kebao mine alone has produced an amount equal to the total importation of the colony. Its quality is stated to be appreciated by manufacturers, and above all for firing. The coal of Honghay is becoming exhausted, it appears, and is consequently in less demand, and will compete in the market with that of Kebao with some difficulty. However, the briquettes made from "Japanese dust," with "Honghai," have given very fair results in those industries where they have been tried. If more regular and more frequent means of transport connected French Indo-China with Shanghai, Tonkin coal would take a still more advantageous position in trade.

EXPORTS OF PETROLEUM FROM U.S.A.

THE Chief of the Bureau of Statistics at Washington gives the following returns of the exports of petroleum and petroleum products for October, 1899. The total shipments were 83,138,165 gallons, compared with 79,524,827 gallons in 1898. The total for the ten months ending October, 1899, were 797,929,971 gallons, against 844,602,871 gallons in the same period of 1898. The details of the shipments are as follows:—

		Gallons.
CRUDE PETROLEUM.		
Total, October,	1899	5,705,985
,, ,,	1898	13,619,818
NAPHTHAS.		
Total, October,	1899	2,794,874
,, ,,	1898	1,532,194
ILLUMINATING.		
Total, October,	1899	66,794,272
,, ,,	1898	53,485,056
LUBRICATING AND PARAFFIN.		
Total, October,	1899	6,404,702
,, ,,	1898	5,614,701
RESIDUUM.		
Total, October,	1899	1,438,332
,, ,,	1898	5,273,058

WEBB'S ACID CONCENTRATION PATENT.

JUDGMENT OF THE HOUSE OF LORDS

JUDGMENT was given on Friday last week in the House of Lords in an action in which Mr Thos. Webb, Queen's Chambers, Market-street, Manchester, and Messrs. Kynoch & Co., Ltd., cordite manufacturers, Arklow, were concerned. The latter were the appellants from the judgment of the Irish Court of Appeal. Mr. Webb originally sought to restrain Messrs. Kynoch from using an apparatus which he alleged was an infringement on his own by which dilute sulphuric acid is concentrated. Messrs. Kynoch contended that Webb's patent was invalid because it had been anticipated by Henry Chance in 1871. Mr. J. Fletcher Moulton, Q.C., argued the case for the appellants (Messrs. Kynoch), Mr. S. Ronan, Q.C., and Mr. W. R. Bousfield, Q.C., represented Mr. Webb.

The Lord Chancellor, in giving judgment for the appellants, said: In this case it seems to me that the majority of the Court relied upon the fallacious assumption that every improvement in a known patentable article was necessarily of itself a patentable improvement, and that in this case, in which I will assume in favour of the respondent that his machine is better, cheaper, and more efficient than that of the original patentee, entitles him not only to use the original patentee's invention, but actually to proceed against him for an infringement of his patent. Of course the question is—What was the original patent, and without going through each of the descriptions either by words or by drawings, it is enough for me to say that, in my view, Chance is the true and first inventor of the whole process, and of the machine by which the result is attained. The scientific idea of the process is unquestionably the same. The concentration of sulphuric acid by the means pointed out is, so far as the application of heat under the circumstances described, absolutely identical, and, indeed, no effort has been made to deny that, apart from the different shapes of the different vessels employed, the process as distinguished from the machine is absolutely identical. Now it is true that any machine protected by a patent is susceptible of improvements, and such improvements, if in other respects conforming to the patent law, may be protected themselves, but they can only be made use of by the licence of the proprietor who is in command of the master patent. The distinction insisted on here is in the form of the bottles, and the greater facility afforded in respect of breakages and the like by the respondent's form of what I have described as the same machinery. Assuming it to be capable of being patented and protected, it has not been sought to be so patented or protected, but the claim is in such a form as would exclude the right of the person who originally invented the machine to work his own invention, or, what is the same thing, any member of the public using what by the expiration of the original invention had been given to all the world. I have been wholly unable to see that the form in which the respondent has framed his claim is not literally applicable to Chance's invention. There is in Chance's "a series of glass vessels placed on steps in a heating chamber, each of these vessels being made with an overflow spout, and having placed on it a glass tube reaching down to its bottom from the spout of the next higher vessel." Now the claim is that which explains the invention, and the width of the claim is here probably intentional. It is aimed at comprehending every form in which this invention can be used, and if Chance or his patent were still unexpired it would be impossible for him, in my judgment, to escape from an action for infringement if this patent were before his, and the limit within which a patentee's rights are to be confined is no immaterial or trivial matter. I can quite understand that it would be extremely difficult for this patentee to explain what his improvements were which he claimed without making it very plain that he was claiming as his own what had been invented by another. I entirely adopt and wish to treat as my own view what Lord Justice Fitzgibbon says after an exhaustive review of all the cases upon the subject:—"In a case such as this, where there is such an almost complete absence of novelty in the parts, and such an almost complete identity in the manner of arrangement and of operation, it seems to me to be especially necessary to insist upon the condition of our patent law, that the patentee must describe and ascertain his invention with such certainty as not to deter the public from using what is old, by purporting to include it in the claim for the monopoly. It is more than a technical objection. It is more than a mere cavilling at the language of Webb's specification, if it purports to claim to protect a process such as this as a new invention and as a valuable improvement. Upon its fair construction, I am forced to read it as doing so. I think that it, therefore, claims too much, and that by so doing it fails to satisfy the condition imposed by our law, and invalidates the patent, upon the principle stated in Foxwell *v.* Bostock, and ever since affirmed, even in the cases which explain the limits within which that principle is to be applied." I move that this judgment be reversed.

Lords Morris, Shand, Davey and Brampton concurred.

LEAD POISONING IN POTTERIES.

THE Home Office has issued a circular to the various manufacturers of china and earthenware in the country stating that the Home Secretary is now in a position to indicate what further steps he proposes to take with a view to securing the protection of the workers in the china and earthenware manufacture from the danger of lead poisoning. These steps may be briefly summarised as follows:—

In the first place the special rules established last year are to be relaxed for factories or processes in which no lead in any form is used. Manufacturers who use leadless glazes or colours will be allowed to propose modifications of the existing rules by which the processes in which the use of lead has been discontinued will be excluded from the operation of such portions of the rules as are intended to protect the workers against lead poisoning, and only those portions will remain in force which are aimed at the prevention of danger from dust, or at securing general cleanliness. Secondly, the medical examination established under Rules 2, 3, and 11 is to be extended to the whole of the workers in lead processes. This proposal follows one of the suggestions put forward in the statement submitted on behalf of the manufacturers in April last. In connection with this change some adjustment of the fees paid to certifying surgeons will be necessary. Thirdly, only glazes in which the lead is fritted are used in the manufacture of china or earthenware, but another period of six months for learning methods of fritting is to elapse before the proposal is brought into force compulsorily. It is to apply not only to the lead used in glazes, but also to the lead used in colours, at all events in all the principal processes. Certain exceptions will be allowed under suitable restrictions. The use of fritted glazes, however, cannot be accepted as the final point, and the Secretary of State is of opinion that after a longer interval, but still within measurable time, a standard of safety in fritts must be definitely fixed by special rules. This standard should, he thinks, have reference, not to the amount of lead in the fritt, but to the solubility of the lead. In order to allow manufacturers ample time to provide themselves with glazes, &c., answering to such a standard, an interval of two years is to elapse before it is brought compulsorily into force. In the meantime the Secretary of State has arranged with Dr Thorpe that specimens of fritted lead or fritted glazes which may be submitted to the Home Office by manufacturers shall be tested in the Government Laboratory in order to ascertain whether they come up to this standard, and that only a very small fee shall be charged for such testing.

IRON AND STEEL INSTITUTE.

THE annual dinner of the West of Scotland Iron and Steel Institute was held in the Windsor Hotel, Glasgow, on Saturday last. About 160 were present. In the course of the toasts of the evening Mr. J Fergus gave the "Lord Provost, Magistrates, and Town Council of Glasgow."

The Lord Provost, in reply, said it had long been a feature of Glasgow that the industries had been so multiform and so varied that they could well afford to have now and then something approaching stagnation in one or another, while the remanent ones might be expected to be full of life and vigour. While that had been the case, it seemed to him that there had been one pre-eminent and paramount industry in the city. At one time it was the tobacco lords, then the sugar magnates, and now the iron and steel kings. (Hear, hear.) Everyone interested in the continued prosperity of Glasgow must desire for this trade and its allied industries a continuous period of prosperity. (Applause.) How much Glasgow had gained, not only from those who had discovered these vast fields of ore, but from the enterprise and skill of those men who had addressed themselves to the development of those fields, it was impossible to say. His wish as Lord Provost of Glasgow was that there might be given them a succession of men who should prove themselves to be able captains of industry to lead those peaceful armies, for peace hath victories no less renowned than war. (Applause.)

Mr. A. B. Law gave the toast of the evening, the "West of Scotland Iron and Steel Institute." He said that he believed that all iron and steel masters would admit that the present was a time of fair prosperity. At the same time, every period of prosperity had been followed by a period of depression. It was only a year or 18 months ago that America was sending all kinds of manufactured and raw iron, not only into the markets with which we were competing, but into this market itself. Further, when he told them that in November, 1896, the production of pig iron in the United States was only at the rate of 8,000,000 tons, while last month it was at the rate of 16,000,000 tons, there was not much fear of him turning out a false prophet when he said that to a certainty we should have competition from that quarter of a kind to which this country has never been subjected before. He was, however, certain when the time of depression did come the same skill and energy

on the part of the leaders of the iron and steel industry would again be shown, and this country would again show that it was able to hold its own in the iron trade of the world.

The Chairman, in acknowledging the toast, said that the report of their proceedings was always anticipated with special interest by kindred societies. Having stated that the membership at the present time was 290, the Chairman said the Council, being anxious to encourage the continuance of high-class papers and obtain a further increase of members, had decided to award a suitable acknowledgment at the end of each session to the authors of original or other papers which they considered of special merit and interest to the various industries represented by the members of the Institute.

Other toasts followed.

SULPHATE OF AMMONIA TRIALS.

THE Sulphate of Ammonia Committee have issued the report of Mr. John Hunter, the Public Analyst for Mid and West Lothian, on the results of the competition for prizes given by the Committee during the season 1898. The report is dated October 13, 1899, and is as follows:—

The reports of experiments for the season 1898 exhibit a want of knowledge of the true science of their business on the part of many practical agriculturists. This condition was quite anticipated, and it is so far satisfactory that, from the schedules issued by your Committee, we have facts, in place of anticipations, which will enable your Committee to treat the subject of manuring, but more especially the rational and irrational use of sulphate of ammonia, more aggressively than they cared to do formerly.

It has to be carefully noted that this season (1898) was a poor one for turnip growing in several respects, and hence the great variations of yields per acre in different localities.

In all hitherto recorded experiments with manures, and especially where sulphate of ammonia and nitrate of soda were contrasted, there is no evidence, excepting in the case of Dalmeny, which can for a moment compare with what is now at your command. In every other case the trials have been limited to one locality; and it may also be safely said that the experimenters were limited in their knowledge of true science, or they had an axe to grind.

Your Committee have now possession of independent reports from responsible societies all over England and Scotland; and it should be carefully observed that there is not one single instance of nitrate of soda proving itself, or being "proved," superior to sulphate of ammonia, while, on the other hand, there is practically a universal declaration of the superiority of sulphate of ammonia.

It will probably be remembered that the first draft of the pamphlet on "The Science of Manuring" pointedly contrasted sulphate of ammonia with nitrate of soda, and, while giving trustworthy evidence of the advantages proved to belong to sulphate of ammonia, pressed the points "as large or larger crops," "heavier weight of grain per bushel," "better quality of grain, bulbs, or tubers," "better keeping qualities," and "better feeding qualities." It is therefore very satisfactory to know that every one of these points are confirmed in a manner which does not permit either of doubt or of questioning.

Class I. (*Yellow Turnips*).—The reports under this class are all favourable; and I would direct attention to my "Note" to the Dalkeith Society's results, viz.: —"It is worthy of remark that the 1st prize crop was grown on the lines of the Dalmeny experimental station—lines recommended in the Sulphate of Ammonia Committee's pamphlet on 'The Science of Manuring.' The difference of 12 tons 8 cwt. per acre between the 1st and 2nd prize crops, and nearly 14 tons between the 1st and 3rd, should surely be an incentive to farmers to consider how to use sulphate of ammonia to the best advantage." It is interesting to know that this Society has also carried out experiments with nitrate of soda this season, as in past seasons; and their results are a valuable contribution to the merits of sulphate of ammonia. In their experiments with grain, the "natural weight" of the oats is in every case diminished by the use of nitrate of soda. In their potato experiments with nitrate of soda, the application of this material resulted in every case in a marked diminution in the weight of crop per acre; and we know that quality is also always sacrificed.

Class II (*Swedes*).—In this class there is not an exception to the general statements already made. It is most interesting to refer to the letter from the secretary to the Banffshire Society regarding the keeping qualities of sulphate of ammonia-grown turnips. The letter, which is dated March 24, 1899, reads as follows:—"I am now in a position to speak with certainty about the keeping quality of the turnips in the sulphate of ammonia competition of last year. I have gone round the various competitors who had them stored before the hard frosts of the season affected them, and in every case I find they are equally as fresh and good as the smaller sizes that were not treated with sulphate of ammonia, and much more juicy. In this we find that the attempt that several parties made—viz., by stating 'that, although the sulphated turnips might grow a heavy crop per acre, they would not keep so well, nor be so fresh in the spring, as non-sulphated crops'—to undervalue the use of a moderate quantity of sulphate of ammonia to the crops, falls to the ground. In the last year's competition, the difference in the appearance of the turnips that got the sulphate of ammonia and those that did not, even in the same field and same treatment otherwise, was so much in favour of the sulphate that this year we intend to take comparative weights.—Yours truly, GEO. DONALD."

Class III. (*Mangels*).—Mangels were, like turnips, much affected by the season; but, notwithstanding that fact, there is not an exception to those probabilities which the theoretical considerations I had the honour of submitting to several members of your Committee at Dalmeny warranted our anticipating.

Class IV. (*Early Potatoes*).—No entries, though it is an important one which ought to be "nursed" a little.

Class V. (*Late Potatoes*) is a highly important one; and there was probably never before such a record in potato culture of weighty facts and weighty crops! Even the smallest crop in the list is in reality a large one compared with the average yield from British soils.

The quality and the keeping quality of the crops, grown over wide areas and under such different climatic conditions, are both highly important features, and they are pointedly referred to; while the general opinion of the competitors as to the comparative merits of sulphate of ammonia and nitrate of soda in potato culture is a most valuable contribution to our knowledge. They are a serious contradiction of most of the English and Scottish experiments, and of the unwarranted declarations of pot-hunting essayists.

In conclusion, I would direct the attention of your Committee to the valuable and instructive test of the Escrick and District Agricultural Club. Their potato trials were made in duplicate, one with, and the other without, sulphate of ammonia; and the results are as follows:—

Crops per Acre.	No. 1. Tons. Cwt.	No. 2. Tons. Cwt.	No. 3. Tons. Cwt.
With sulphate of ammonia	19 15	19 1	16 8
Without ,, ,,	15 11	15 9	13 5
Excess produced by sulphate	4 4	3 12	3 3
Sulphate used per acre	2 cwt.	2 cwt.	2 cwt.
Costing at (say) 11s. per cwt.	£1 2s.	£1 2s.	£1 2s.
Which yielded, taking potatoes at 70s. per ton	£15. (about)	£12 12s.	£11.

Crops per Acre.	No. 4 Tons. Cwt.	No. 5. Tons. Cwt.	No. 6 Tons. Cwt.
With sulphate of ammonia	16 2	15 10	14 5
Without ,, ,,	12 2	14 7	12 5
Excess produced by sulphate	4 0	1 3	2 0
Sulphate used per acre	1½ cwt.	2 cwt.	1 cwt.
Costing at (say) 11s per cwt.	16s. 6d.	£1 2s.	11s.
Which yielded, taking potatoes at 70s. per ton	£14.	£4	£7

To put these points concretely, if No. 1 had 50 acres in potatoes and expended £55. on sulphate of ammonia, he would pocket £750. over and above the profit from his ordinary crop. Or take No. 6, which is the lowest as regards amount of sulphate of ammonia used. In this case, the expenditure being £27. 10s. on sulphate for 50 acres, his extra profit would be £350., which is no mean addition to a farmer's profit from a fraction of his farm, and it is within his power to do likewise with all the other sections.

In the light of such facts as these, which only confirm the accuracy of the rational science of agriculture, and which are the results arrived at in actual field practice and are not to be questioned, the clamour about agricultural epression requires some explanation.

CHANGE OF ADDRESS.—Messrs. Typke and King advise us that on account of the re-building of Jeffreys-square, they are removing on the 1st of January to 47, Wilson-street, Finsbury-square, E.C. They have made this an opportunity for considerably improving their accommodation, and will have much larger offices and a good warehouse. Their new telephone number will be 489 London-wall.

SEARCHING FOR IRON ORE IN FURNESS.—The statement recently published that a very valuable bed of ore had been discovered in the Burlington Pit at the Park Mines, near Barrow, belonging to the Barrow Steel Company, is incorrect. The company, however, are testing for ore between the Park Mines and Barrow-in-Furness, and in order to ascertain if the metal lies at a greater depth than is at present worked, will have to pierce the red sandstone. The Duke of Devonshire announced at a meeting of the company that these boring operations had been undertaken on the advice of experts.

Reports of Companies.

NEW TAMARUGAL NITRATE CO.

The report for the year ended July 31 states that after providing for London expenses and a difference in exchange amounting to £1,480., and writing off legal and other expenses in connection with the conversion of shares and the new deed of trust, the net profit made during the year has been £8,237. In view of the extremely low prices obtainable for nitrate during the period under review, the directors cannot regard this result as unsatisfactory, especially seeing that since the date at which the books were made up a substantial rise in the price of nitrate has taken place, which has benefited the company in selling the balance of the stock of nitrate brought forward. Interest on debentures absorbed £10,602., and on loans £1,098., thus leaving a debit balance of £3,463. to be carried to the general balance-sheet, which, with the amount brought forward, and a further allowance for depreciation in exchange upon assets on the West Coast, now stands at £27,699.

THE SMELTING CORPORATION, LTD.

The report of the directors of the Smelting Corporation, Ltd., states that the date of the shareholders' meeting has been fixed so late in the year owing to the desire of the board to lay before them the results of actual working in both departments at Ellesmere Port. The altogether unexpected delay in the delivery of machinery and materials, and in the erection of furnaces and electric power plant has prevented this; but operations in the zinc department have now commenced and give the directors great satisfaction, while as regards the recovery of silver they have already exceeded expectations. Every effort will be made to begin cupola smelting by the end of January. As stated in the circular of March 14 last, the important alterations in the original plans adopted by your board, on the advice of Mr. Devereux, and the increase in prices of materials and labour have considerably raised the original estimates of the cost of the works. The first intention of the board was to erect one unit only, that is one-third of the entire works contemplated, and to test it in operation before going further. It was found necessary, however, when dealing with such matters as offices, store-rooms, fitting shops, railway sidings and locomotives, wharf, crushing and sampling arrangements, and water supply, to make provision for nearly all three sections at once, which has been done. The directors also, upon further consideration, decided that it was not prudent to rely upon only one unit of power plant, as a temporary breakdown in this would bring operations to a stand. Two units were therefore ordered and are now complete, either being sufficient to work one third of the whole plant. It was further decided, that as the corporation had purchased 20,000 tons of slags obtained from ores which had passed through the smelting department of the Burnham Syndicate, and therefore only required treatment in the Siemens furnaces at Ellesmere Port, it was desirable to complete two units of zinc plant as soon as possible in order not to interfere with the treatment of the slags produced by the first unit of smelting plant. Consequently, when the immediate plans of the directors are complete, one entire unit will be finished, and the power plant and zinc portion of the second; the smelting department of the second unit will, of course, be taken in hand as soon as the first is in working order.

THE WORKS,

as will be seen from the engineer's report, are of the most thorough and efficient character, and should secure the treatment of ores and slags at the lowest possible cost, and with the maximum recovery of metals. The expenditure on account of ores (£53,703.) is considerable, but the directors had anticipated commencing work many months ago, and made arrangements accordingly. Had their anticipations been realised, a considerable portion of this ore would by this time have been converted into cash. Owing to the advance in the price of metals the ores have risen in value since they were purchased; this expenditure may therefore be looked upon as a temporary and profitable investment of a portion of the capital. In the meantime financial arrangements have been made which will meet the present requirements of the corporation.

CO-OPERATION WITH THE U. A. CO.

The directors are now glad to be able to announce that the agreement referred to in March, relating to an electrolytic process for the treatment of zinc oxide was made with the United Alkali Company, Ltd., who are only waiting for a supply of the oxide which we are now manufacturing in order to commence experiments on a larger scale than those previously conducted in London. The scientific experts of that company and those who represent the patentees are very hopeful of the success of the process, and your directors therefore look upon their interest in this agreement as a very valuable asset. A company has been formed in the United States of America for the purpose of exploiting the corporation's patents in that country as soon as the process is thoroughly at work at Ellesmere Port and results can be made known. This company is in a position to take immediate action, and will be managed by gentlemen who are in a position to bring most valuable scientific and commercial interests to bear upon the development of the business in the States.

SULPHIDES REDUCTION LTD. (NEW PROCESS).

The report of the directors for the year ended October 31 states that, after long negotiations with the French syndicate, they have just concluded a contract whereby the Sulphides Reduction Company has acquired the option, at three months, of purchasing the lease of the French smelting works at Angouléme, together with all the syndicate's interest in the mining properties which are situate in the districts of Alloue, Ambernac, Anduze, and Haute Loire. This option extends to the taking over of all the other interests and liabilities of the syndicate, which latter, exclusive of any balance of purchase money that may have to be paid in connection with the completion of the purchase of the Alloue property, are not to exceed £3,400. It is intended that these mines and works, etc., shall be amalgamated with the British Sulphides Smelting Company, recently registered by the company to operate the patent rights of the process in Great Britain on a large scale, and the combined interests capitalised at £1,000,000., by which arrangement the Sulphides Reduction Company should benefit to the extent of about £500,000. in cash and shares. The services of a well-known American mining engineer (Mr. W. D Middleton) have been retained by the board, and he has just completed a preliminary inspection of the mining properties in question, with a view to those most suitable being worked on an extensive scale. The company recently issued 3,000 shares, being the balance of the unissued capital, at £2. per share. The issue has been fully subscribed, and the money is now available for the purposes of the company. The directors consider that the business of the company is progressing most satisfactorily, and they trust that the early flotation of the subsidiary companies will soon enable them to make distributions of dividends to the shareholders of this the parent company.

BARROW STEEL CO.

The Duke of Devonshire presided over a special meeting of the shareholders of the Barrow Steel Co., held at the Westminster Palace Hotel on Saturday last, to confirm a resolution, adopted at a previous meeting of the company, to reduce the capital by one-half, to the extent of £764,000., in which reduction the preference and ordinary shareholders are to share *pro rata*. There was a large attendance. His Grace said that some of the preference shareholders who spoke at the last meeting against the resolution appeared to doubt the reality of the depreciation in the assets of the company, and it was suggested that the capital was being unduly reduced in order to benefit the ordinary shareholders. There was no foundation whatever for that suggestion. The directors would have been very glad if values had not depreciated to the extent they had; but the reports of the experts who had valued the asset were so conclusive on the point, and the facts were so well established, that £764,000. must be written off, that they were bound to deal with the question without further delay. They would not have been justified in continuing to issue balance sheets which they knew were erroneous, and which might, and probably would, have deceived their customers and their shareholders, and also those who might desire to become shareholders. If they had not taken the course of writing down the capital the only alternative which they could have adopted would have been to apply the future available profits to this depreciation—("No, no")—and that would have meant that neither the preference nor the ordinary shareholders would have got any dividend for a large number of years. He therefore moved the confirmation of the resolution adopted at the last meeting of the company. Mr. J. Fell (director) seconded. Several preference shareholders, including Messrs. Bond, Poole, Evans, and Walker, and Mrs Needham, raised strong objection against the resolution, as being decidedly unfair to the preference shareholders, and against the spirit in which preference shares were understood to be held as regards preference both as to capital and dividend. An amendment was moved that a committee of preference shareholders confer with the board, with a view to an arrangement. This was lost, and the resolution proposed by the chairman was carried by a large majority. The case will now come before the High Court for sanction.

MINERAL INDUSTRY OF CAPE BRETON.—The current issue of the "Canadian Mining Review" contains an exhaustive article on the coal and iron industries of Cape Breton. The present revival of interest in the resources of the region is due to the fact that, alongside the collieries of the Dominion Coal Co., the Dominion Iron and Steel Co. is building iron and steel works at a cost of 6,000,000 dols. The four blast furnaces will have a daily capacity of 250 to 300 tons each, and the steel mill of 800 tons. Steel will be made by the open-hearth process, and contracts have been given out for the construction of 400 Otto-Hoffman by-product coke ovens.

EXPORTS OF ALKALI AND BLEACH.

THE following returns, which are taken from the official foreign and colonial statistics of the United Kingdom, give the amount and value of alkali and bleaching materials shipped to the undermentioned countries for October, 1899, as compared with October, 1898 :—

ALKALI.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
Russia	23,698	15,239	7,004	4,670
Sweden and Norway	18,299	15,565	4,462	3,919
Germany	12,277	5,696	2,841	2,094
Holland	9,807	9,382	2,114	2,404
France	5,470	2,944	1,972	1,187
Spain and Canaries	37,539	34,314	11,930	11,141
Italy	28,275	25,338	8,269	6,935
United States	52,757	46,030	11,814	10,249
Australasia	22,331	26,432	6,274	8,211
British North America	43,293	42,665	10,339	7,891
Other countries	121,493	96,233	35,683	29,520
Total	375,239	319,838	102,657	88,221

BLEACHING POWDER, ETC.

Port.	1898.	1899.	1898.	1899.
	Cwts.	Cwts.	£	£
United States	60,869	70,951	15,307	16,351
Other countries	42,329	31,719	12,762	8,939
Total	103,198	102,670	28,069	25,290

Trade Notes.

GERMAN COMMERCIAL LAW.—From January 1st next, all German banks, financial establishments, and, generally, all great commercial concerns, will be compelled, under the penalty of prosecution, to have outside their offices, in clear letters, the surnames and at least one Christian name of the directors or proprietors. Limited liability concerns will have to add the names of at least two of their directors.

CONTINENTAL COKE CONTRACTS.—At its last meeting, held in Bochum, the Westphalian Coke Syndicate fixed the selling prices for new contracts during 1900 and 1901 as follows :—Blast-furnace coke, 17 marks (shillings) per ton for the two years; foundry coke, 18 marks 50 pf. (18s. 6d.) in 1900 and 21 marks 50 pf. (21s. 6d.) in 1901, small coke being 19 marks (shillings) and 22 marks (shillings) during the two years respectively, while the prices of inferior qualities are increased proportionately.

THE COAL DUTIES IN RUSSIA.—In accordance with representations which have been made to him on behalf of the inhabitants of Warsaw, the Minister of Finance has decided to permit the importation of coal duty-free into that city throughout the year 1900. In the case of Odessa, Nicolaieff, Sebastopol, and other towns where the need of cheaper fuel is felt the Minister has fixed the import duty on house coal at 1½ hopeck per pood. The same duty will be paid on coal for use by steamers engaged in the Black Sea and the Sea of Azoff trade.

"ELECTRONITE."—We understand that, owing to the recent stringent regulations of the Home Office, with reference to the use of explosives in coal mines, a special test has been arranged for. The conditions are that an explosive, to be placed in this list, must satisfy the Government as to its non-liability to ignite gas or coal-dust when used in the pit. We believe the percentage of gas and coal-dust, used in the trials, is such as is never found in practical working. We note, however, that Messrs. Curtis & Harvey's "Electronite" has passed this severe test, and is now placed on the "special list" of permitted explosives.

COAL AGAIN ADVANCED.—The Dean Forest Association of House Coal-owners have given notice that house coal has been advanced 1s. per ton, making the substantial improvement of 3s. per ton this season. The 5,000 hands employed in this district will now have received 15 per cent. advance in wages this year. At a well-attended miners' meeting at Pendlebury last week, Mr. John Grundy, president of the local association, presiding, it was unanimously resolved to decline the Conciliation Board proposals, the selling price warranting an immediate and unconditional 5 per cent. advance, but if accepted the minimum be raised proportionate to the maximum, and when the Conciliation Board is nearing its close is the time to discuss its continuance.

THE RUSSIAN IRON INDUSTRY IN 1899.—According to a report issued by the St. Petersburg Bureau of Iron Manufacturers, the quantity of pig-iron produced by Russian ironworks in the first six months of 1899, amounted to 81,550,000 pouds (1,310,000 English tons). As the furnaces have been kept working without interruption throughout the year, the total production of pig-iron during 1899 may be estimated at 164,000,000 pouds (2,600,000 English tons), as compared with 135,635,000 pouds (2,180,000 English tons) in 1898

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are quiet at 8d. to 8½d. for 90's and 10d. to 10½d. for 50/90's. Carbolic acids are steady and prices well maintained. Naphthas are unchanged and in fairly good request. Anthracene rather better. Pitch firm at 34s., f.o b. East Coast. Creosote and heavy oils firm at full prices.

Sulphate of ammonia is quiet; in fact dull and prices generally are easier. Forward quotations are for the most part withdrawn, and Beckton is no longer offering in either position. Closing prompt values are :—London (outside makes) £11. 2s. 6d., Hull £11. 2s. 6., and Leith £11. to £11. 3s. 9d.

MISCELLANEOUS CHEMICAL MARKET.

Inquiries and orders have fallen off somewhat during the past week, due, no doubt, to the approaching holidays. Prices, generally, are firm. Bleaching powder scarce for prompt delivery, at £6. per ton. Caustic soda practically unobtainable for "spot"; prices strong, but unchanged. For 1900, 5s. per ton less is quoted, making 76%, £9. 10s.; 74%, £9. 5s.; 70%, £8. 15s.; 60%, £7. 15s., all f.o.r. works. Pure alkali, 58%, steady at £4. 7s. 6d. Saltcake appears to be "hardening," and is generally quoted at 27s. 6d. per ton, f.o.r. Nitrate of soda remains without change. Chlorate of soda and potash are in much about the same position. Sulphate of copper rather quiet at £25. to £25. 2s 6d., f.o.b. Acetates continue in excellent request, and prices have an upward tendency. Acetic acids, scarce; 40%, £9 5s, and 25%, £6. 5s, may be taken as to-day's values. Foreign white sugar of lead, £24. 10s. Acetate of soda, £14. 10s. Brown acetate of lime, £6. 5s.; grey, £9. 10s. Sulphur of all grades are in better request, but prices are unchanged. Yellow prussiate of potash is inclined to improve, and is quoted ¼d. per lb. higher. Soda, dull at former rates. White powdered arsenic is firmly held, but does not meet with any large amount of inquiry; £19. 5s. to £19. 10s., at Garston, is about current quotation. Ammonia and its salts continue active, and prices are well maintained. Grey muriate is now quoted at £24., but this figure is only nominal. Bichromates are still off the market, and stock is realising "fancy" prices. Potash appears scarce for any near delivery, but soda is offered for January at 2¼d. per lb. Potash, carbonate and caustic, commanding big figures, due principally to the very small quantity offering, and the difficulty in obtaining delivery. Chemicals used in the dying and printing trades are in fair demand, and prices are satisfactory.

REPORT ON MANURE MATERIAL.

The market remains very quiet, and there seems to be no disposition to operate.

The quotation for 77/80% Florida phosphate rock remains 8½d. per unit, c.i.f., to good United Kingdom ports, and that for Tennessee, 78/80%, 7¼d. per unit. Algerian, 58/63%, grade is held for 6¾d. per unit, 1900 shipment, and South Carolina at 6½d. per unit.

Sales of East Indian bone meal, fine quality, have been made at £4. 15s. per ton, ex quay Liverpool, and that is closing value. For ordinary Karachi meal, 5% sand basis, £4. 12s. 6d. per ton would be accepted for January/February steamer shipment.

Nitrate of soda is a shade firmer, and 8s. per cwt for good and 8s. 1½d. per cwt. for refined quality are the closing quotations.

In miscellaneous material there is nothing to report.

THE METAL MARKETS.

LONDON, WEDNESDAY.—Pig iron steady: Scotch warrants closed 64s. 4½d., Middlesbrough, 63s. 1½d. cash; and hematite, 71s. 7½d. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s closed at £7

to £70 5s. cash; and £68. 15s to £69. three months. Tin firm: Straits closed at £103. 5s. to £103 15s. cash; and £105 to £105 10s. three months; Australian, £103 5s; English ingots, £106 10s. to £107. Lead easy: Spanish, £16 10s to £16 12s. 6d.; English, £16 17s. 6d. Silesian spelter, ordinary, £20 2s 6d. to £20. 7s. 6d Nickel, 1s. 3d. to 1s. 4d. Antimony, £39. 10s. to £40. Quicksilver: First and second hands, £9 12s. 6d. *Copper Shares* steady: Cape, 5¾ to 5½; Copiapo, 3⅜ to 3⅞; Libiola, 1⅜ to 1¼; Mason & Barry, 4¼ to 4⅜; Rio Tinto, 42¾ to 43; Tharsis, 9⅛ to 9⅜.

GLASGOW, WEDNESDAY.—Market irregular, and a moderate business. Scotch done at 64s 3d., 63s. 11½., and 64s. 2d. cash; also at 64s. 6d., 64s. 4½d.,and 65s. month; buyers, 64s. 4½d. cash; sellers, 64s. 5½d. Cleveland done at 63s. 6d. month; buyers, 63s. 1½d. cash, sellers, 63s. 4½d. Cumberland hematite done at 71s 6d. and 71s. 9d. to 72s 1½d. month; buyers. 71s. 7½d. cash; sellers, 71s. 10½d.

LIVERPOOL OIL AND COLOUR MARKET.

WEDNESDAY.

OILS.—Palm oil is steady, and there has been fairly well of business doing. Olive oil is in limited request at full values, particularly for Spanish. Linseed is quiet, but Liverpool makes are still quoted at 22s 6d. to 23s. 6d. Cottonseed is very firm, with Liverpool refined at 20s. 6d. to 21s. Castor oil is in rather better request on spot, and sales of first pressure French are reported at 2¾d, while good seconds Calcutta is steady at 2 7/16d. per lb Tallow is very firm, but practically no sales are reported. Resin keeps steady in all grades, and there has been fairly well doing. Common is firm Spirits of turpentine offer at 38s. 6d., with a moderate inquiry. Petroleum is rather feeble at 7⅜d. to 8⅞d for American, and 6⅜d. to 6¾d. per gallon for Russian refined.

CAKES.—There is a firm tone ruling in all classes of cakes, and with a fair inquiry for American Western linseed the recent quotation of £7. 2s. 6d. to £7. 6s. 3d. is well maintained. River Plate continue nominally unchanged in value for want of spot supplies in first hands, and sellers of Bombay for early arrival quote £7. 15s. to £8. per ton, but so far no business has been reported. Liverpool makes are in moderately fair consumptive request, and the value is still given at £8 5s. to £9. per ton, according to brand. Good to choice brands of American decorticated cottonseed are 2s 6d. dearer, and a good demand is experienced at £6. to £6. 7s. 6d.; but Liverpool makes, both of decorticated and undecorticated, remain without change in value, with a moderate business doing in the former at £6. 12s. 6d. to £6. 15s., and a fair trade passing in the latter at £4. 16s. 3d. to £5. 10s. per ton. both according to brand. Egyptian are also in moderate request, and sellers are a shade firmer to deal with, £4. 11s. 3d. per ton being now the price ex quay.

COLOURS.—Prices are steady, and practically without change. Ochres: Oxfordshire—common £10., medium £12., best £15.; Derbyshire—common 40s., medium 50s., best 60s.; Welsh—best 90s.; seconds 50s., and common 18s; Devonshire, 40s. to 45s; French, J.C., 65s. Umber: 40s. to 45s. White lead: £16. Red lead unchanged. Venetian red: £6. to £10 Cobalt: Prepared oxide, 9s. 9d.; black 9s.; blue 6s. Oxide of iron: Common £7.; medium £10., finest £20. Zinc oxide: £22. 10s. to £25.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

Sulphate of ammonia has given way to some extent, and quite the highest asked for by any of the makers to-day is £11. 5s., f.o.b. Leith, prompt delivery. Some sellers are very likely disposed to do business at a mark below that even, and forward dealing has to some extent been checked, in the expectation on the selling side that prices will descend still farther. The market for chemicals generally is quite sound, and scarcity in some of the lines is still complained of, while the demand continues healthy. Mineral oils and solid paraffins are all very firm at prices for some time ruling. It is reported that three bleaching firms of very old standing in the vicinity of Glasgow are arranging for amalgamation. Last week's imports of sugar at Greenock were 11,800 bags beet unrefined.

Chief prices current are:—Alum, in lump, £4 5s. to £5. nett., Glasgow; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. casks, £6. 15s. nett. Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2½d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bleaching powder, 35/37°, £5. to £6. 10s., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett. Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8., and cream, 60/62° £8. 15s., all nett, Liverpool; chlorate of potash, 3¼d, less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 2¾d. per lb.; paraffin wax, 120° semi-refined, 3d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¼d., and crystal 7d. at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £5 10s. to £6.; 885°, £7. to £7. 10s. and 890/895°, £7. 10s to £8.; salammoniac, first and second white, £40 and £38. nett, any port: saltcake, 26s.; soda ash, £4. 10s. to £4. 15s., nett Tyne; soda crystals, £2. 15s. to £3., basis, nett, Tyne; sulphate of ammonia, £11. 2s. 6d. to £11. 5s. prompt, f.o.b. Leith; sulphate of copper, £24. 15s to £24. 17s. 6d. less 5% Liverpool; white alkali, £5. 2s 6d. to £5. 10s. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Chemicals continue in fairly good demand, with prices unchanged. Soda crystals are £2. 17s. 6d. per ton. gross weight, locally. Caustic soda, 70%, £9. 5s. per ton, and 76/77% £10. per ton. Sulphur scarce at £4. 15s. per ton, f.o.b.

Bleaching powder, softs, £6. 10s. per ton, nett; do., hards, £6 15s. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags. £4 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do., 50%, £4. 17s. 6d per ton, nett; do., 52%, £5 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. od. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4 per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3 per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt firm at 10s. per ton, f.o.b. Tees.

COALS.—Trade is still very brisk, and market strong. Gas coals very scarce. Coke firm, and for best Durham as high as 32s. 6d per ton, f.o.b., is asked. To-day's quotations are:—Best Northumbrian steam, 14s. to 15s. per ton; second quality, 13s. to 14s. per ton; small steam, 8s. to 8s. 6d. per ton; bunker coals, 13s 6d. to 14s. per ton; gas coals, 14s. to 15s; coke, 30s. to 32s. 6d. per ton.

New Companies.

William White & Son, Ltd.—CAPITAL £2,000. in £1. shares. This company has been formed to acquire the business known as William White and Son, botanical druggists, carried on at 59-61, Sunbridge-road, Bradford, Yorkshire, and to carry on the business of chemists, druggists, electrical, photographic and scientific apparatus manufacturers, etc.

Innes & Co., Ltd.—CAPITAL £25,000. in £10. shares. This company has been formed to acquire the manufacturing rights of J. H. Innes and Innes & Co., in an invention known as "Innes' Patent Metallic Zinc Powder, for an improved method of preventing corrosion and incrustation in steam boilers, and to acquire the business now carried on at Hull by the said firm of Innes and Co. The subscribers to the memorandum of association are:—W. H. Cockerline, Trinity House Lane, Hull, shipowner; H. Samman, Bowlally Lane, Hull, shipowner; F. E. Hagerup, Royal Dock Chambers, Grimsby, shipowner; I. Gedes, 147, Leadenhall-street, E.C., shipowner; D. Radcliffe, Bute Docks, Cardiff, shipowner; F. S. Watts, 7, Whittington Avenue, E.C., shipowner; R. Innes, Gt. Thornton-street, Hull, analyst.

Electrolytic Alkali Co., Ltd.—CAPITAL £500,000. in £1. shares (2,000 pref). This company has been formed to manufacture alkali, chlorine, bleaching powder, and other chemical substances by electrolysis or otherwise, to adopt and carry into effect agreements (1) between the General Electrolytic, Parent, Co., of the first part, Charles C. Connor and Douglas Hermann of the second part, and the Company of the third part, and (2) between the General Electrolytic, Parent, Co., Ltd., and to carry on the business of alkali, soap, and saponaceous and oleaginous substance manufacturers, manufacturing chemists, electro-metallurgists, etc. The subscribers to the memorandum of association are:—C. C. Connor, 2, Queen's Elms, Belfast, merchant; W. Thomson, Royal Institution Laboratory, Manchester, consulting chemist; J. A. Morice, 124, St. Vincent-street, Glasgow, manufacturing chemist; W. I Thomson, Ghyllbank, St. Helens, Lancashire, copper smelter; A. Neilson, 6, Chapel-street, Liverpool, general produce broker; W. Varley, St. Ann's, St. Helens, Lancashire, bank manager; J. Wilson, Oakford-road, Runcorn, chemical engineer.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.
Week ending December 9th.

Acetic Acid—
Holland, 16 pks. R. W. Greeff & Co
,, 12 F. Boehm
,, 32 A. & M. Zimmermann
Norway, 22 H. G. Brown

Alkali—
Germany, 19 c. Spies Brs. & Co.

Alum—
Holland, 540 pks. J. White
Belgium, 14 R. W. Greeff & Co.

Antimony Ore—
France, 20 t. Novelli & Co.

Arsenic—
Portugal, 87 pks. Coverley & Westray

Barium Chloride—
Germany, £60 Petri Brs.

Barium Sulphate—
Belgium, 60 pks. J. L. Lyon
100 bgs. & Co.

Baryta—
Holland, 29 pks. R. W. Greeff & Co.
,, 24 O'Hara & Hoar
,, 38 Wilkinson, Heywood, & Co.
,, 89 W. Harrison & Co.
Germany, 79 ,,
,, 50 Humphery & Co.
,, 84 J. L. Lyon & Co.
Belgium, 594 ,,
,, 109 W. Harrison & Co.

Basic Slag—
Belgium, 200 t. Anglo-Continental Guano Works

Bleaching Powder—
Holland, 12 pks. J. M. Steel & Co.
Germany, 2 30 pks. ,,

Boracic Acid—
Italy, 17 pks. A. Laming & Co.

Bromine—
Germany, 45 pks. A. & M. Zimmermann

Caoutchouc—
Holland, 2 t. 10 c. Prop. Bull Wf.
Belgium, 16 1 ,,
France, 8 ,,
,, 5 H. Johnson & Sons
,, 1 Van Oppen & Co.
,, 2 W. Balchin, Ld
Zanzibar, 14 L. & I. D. Jt. Co.
Chinde, 7 ,,
Inhambane, 12 ,,
Straits. 13 8 E. Boustead & Co.
,, 2 16 Elkan & Co.
,, 3 Prop. Bull Wf.
,, 3 Lambert & Strong
Madagascar, 4 10 Procter Brs.

Calcium Carbide—
France, 1,142 drs. C. Bingham

Carbon—
Holland, £115 Phillipps & Graves
Channel Is., 40 Cheesewright & Ford

Castor Oil—
E. Indies, 50 cs. L. & I. D. Jt. Co.
Italy, 10 C. Gee & Co.
,, 20 Stebbing & Co.
France, 54 brls Mordaunt Brs.
Belgium, 70 C. & E. Morton
Cochin, 23 cks. J. Owen

Caustic Potash—
Germany, 45 pks. J. M. Steel & Co.
,, 20 South Devon Wf Co.
Holland, 55 J. M. Steel & Co.

Chemicals *(otherwise undescribed)*
Germany, £10 A & M. Zimmermann
,, 10 R. W. Greeff & Co.
,, 108 E. Merck
,, 51 L. & I. D. Jt. Co.
,, 42 Argo S. S. Co.
Belgium, 14 John Cockerill Line
Holland, 6 Pickford & Co.
,, 13 R. Bell & Co
,, 95 Netherlands S. B. Co.
,, 240 S. C. Jones
U. States, 690 ,,
France, 10 Mory & Co.

Coal Products—
Alizarine
Holland, 47 pks. M. Benscher
Pitch
France, 60 brls. H. Hill & Sons
N. Russia, 123 Deering & Robottom
Germany, 50 H. Hunt
Tar
Germany, 13 brls. J. Greig
U. States, 300 T. Nickels & Co.
Belgium, 5 Wilson & Co.

Colours—
Holland, 9 cks. O'Hara & Hoar

Cream of Tartar—
France, 20 pks. W. C. Bacon & Co
,, 14 T. Trapp & Sons
,, 5 M. Ashby, Ld.
,, 4 Blackmore, Leconte, & Co.
,, 15 F. C. Devon & Co.

Dyestuffs—
Aniline
Holland, 48 pks. M. Benscher
Cochineal
Canaries, 14 pks. W. M. Smith & Sons
,, 34 Hendry & Martin
,, 4 Marshall & French
Teneriffe, 6 bgs. Swanston & Co.
Cutch
E. Indies, 3 pks. Perkins & Homer
Holland, 20 Hoare, Wilson & Co.
Extracts
France, 35 pks B. & F. Wf. Co.,
,, 101 Boutcher, Mortimore, & Co.
Germany, 208 Fuerst Brs.
U. States, 30 W. Burton & Sons
Holland, 1 Powell, Jones, & Co.
,, 1 ck. W. Grose & Co.
Indigo
Holland, 1 brl. M. Benscher
E. Indies, 5 chts. R. Von Glenn & Son
,, 5 A. Young & Co.
,, 4 Forbes, Forbes, & Co.
,, 10 L. & I. D. Jt. Co.
Hong Kong, 141 ,,
Myrabolams
E. Indies, 722 pks. W. Shelcott & Sons
,, 1,108 H. J. Perlbach & Co.
Saffron
Spain, 6 pks. H. Rutecks
,, 1 J. Knill & Co.
,, 1 Major & Field
,, 1 Hodgkinson, Clarke, & Co.
,, 1 cs. Richardson, Spence, & Co.
Sumach
Italy, 2,420 pks. W. Balchin, Ld.
Tanners Bark
Belgium, 11 t. Leach & Co
Natal, 100 Boutcher, Mortimore & Co.
,, 34 Bullard, King & Co.
,, 603 bgs. Flack, Chandler, & Co.

Dyestuffs *(otherwise undescribed)*
U. States, 4 pks. Rosenberg, Loewe, & Co.

Farina—
Holland, 100 pks. J. Knill & Co.
,, 170 Humphery & Co.
,, 190 J. Barber & Co.
,, 200 R. Bennett & Co.
Germany, 100 ,,

Glucose—
U. States, 530 pks 500 c. Fellows, Morton, & Co.
,, 509 500 L. & I. D. Jt. Co.,
,, 1,250 2,500 H. A. Litchfield & Co.
,, 200 700 L. Norman & Co., Ld.
,, 5,199 5,599 R. G. Hall & Co.
,, 1,102 500 Pickford & Co.
France, 300 600 Trier, Meyer, & Co.
Greece, 14 25 Vagliano Brs.
Germany, 200 200 Baxter & Hoare
,, 50 496 Beresford & Co.

Glue—
France, £953 T. M. Duche & Sons
,, 150 Burnett Brs. & Sons
,, 72 Mory & Co.
U. States, 80 L. & I. D. Jt. Co.
,, 60 Taylor Brs.
,, 50 London Parcels Del. Co.
,, 200 W. Dixon
Germany, 110 M. H. Voss
,, 27 Craven & Co.
,, 40 L. & I. D. Jt. Co.
,, 182 Jones & Co.
Paris, 80 G. & J. Porter
Holland, 14 Netherlands S. B. Co.
Belgium, 172 Leach & Co.
,, 45 D. C. Thomas & Sons

Glycerine—
Holland, £240 J. Barber & Co.

Gutta Percha—
Straits, 15 t. 4 c. W. Pope & Co.
,, 12 5 Prop. Bull Wf.
,, 38 10 H. W. Jewsbury
,, 12 8 Anderson, Weber, & Smith

Iodine
Japan, £120 H. J. Perlbach & Co.

Lead Acetate—
Germany, 32 pks. F. Boehm

Litharge—
Germany, 18 pks. H. Wallace & Co.
,, 16 D. Storer & Sons
Holland, 24 J. Owen

Lithopone—
Germany, 40 pks. J. L. Lyon & Co.

Magnesia—
U. States, £141 S Lambert & Co.

Magnesium—
Germany, 2 pks. Argo S. S. Co.

Manure—
Canaries, 13 t. West & Penrose
Germany, 100 F. W. Berk & Co.,

Methylic Alcohol—
France 2,474 g. E. J. Catlin

Molasses—
U. States, 116 cks. 628 c. J. Forsey
Holland, 520 bgs. 1,000 Union L. Co.

Ochre—
Holland, 25 pks Phillipps & Graves

Oxalic Acid—
Holland, 20 pks. R. W. Greeff & Co.

Paraffin Wax—
U. States, 350 cs. Anglo-American Oil Co.
,, 20 brls. L. & I. D. Jt. Co.

Phosphates—
Holland, 1 ck. Hernu, Peron, & Co
U. States, 1,500 t. Wyllie, Ward, & Co.
,, 900 A. Hunter & Co.
France, 170 ,,

Potash—
Germany, 2 cks. T. H. Lee

Potassium Carbonate—
Holland, 17 t. 10 c. J. M. Steel & Co.
Germany, 10 Charles & Fox
,, 10 Petri Brs.

Potassium Oxalate—
Holland, 40 pks. R. W. Greeff & Co.

Potassium Permanganate—
Germany, 70 pks. R. W. Greeff & Co.

Potassium Silicate—
Holland, 6 pks. J. Barber & Co.

Potassium Sulphate—
Germany, 300 pks. Bessler, Waechter, & Co.

Pyrites—
Spain, 1,500 t. W. H. Muller & Co.

Red Lead—
Germany, 17 pks. Randall Brs.
,, 38 cks. Perkins & Homer
,, 108 pks. Fuerst Brs.
,, 4 H. Wallace & Co.
Holland. 18 J. Owen

Rosin—
Belgium. 265 brls. Moore & Hole
U. States, 6,032 F. & S. Chiesman & Co
,, 4,150 T. Nickels & Co.
,, 4,430 Moore & Hole
,, 1,789 London Oil Storage Co.
,, 11 L. & I. D. Jt. Co.
Wilmington, 500 Prod. Brokers' Co.

Salicylic Acid—
Germany, 23 pks. T H. Lee

Saltpetre—
Germany, 16 cks. L. & I. D. Jt. Co.
,, 136 P. Hecker & Co.
,, 50 bgs. C. Wimble & Co.
Belgium, 50 cks. G. S. N. Co.

Soda—
Belgium, 50 t. 2 c. A. G. Barker
,, 6 Leach & Co.
Holland, 14 G. S N. Co.

Soda Crystals—
Belgium, 6 t. Leach & Co.

Sodium Bichromate—
Germany, 22 pks. H. J. Ho...

Sodium Hyposulphite—
Germany, 4 t. H. La...
Holland, 9 R. W. Greeff ...

Sodium Phosphate—
Holland, 1 ck. Hernu, P... & Co

Sodium Prussiate—
Belgium, 27 pks. J. ...

Starch—
U. States, 300 pks. C. Tennant, ... & Co
,, 25 W. W. Jones & Co.
,, 35 F. Tallack & Co.
Germany, 1,000 Horne & Co.
Holland, 880 Little & Johnston
,, 32 Netherlands S. B. Co.
,, 40 G. S. N. Co.
,, 1,100 A. Stares
,, 180 Hernu, Peron, & Co.
France, 21 Sollas & Son
,, 21 L. Mendelsohn
Belgium, 124 Leach & Co.
,, 560 T. H. Lee
,, 162 I. Harrison
,, 200 T. Ronaldson & Co.
,, 60 cs. Pearce, Duff & Co.

Stearine—
Belgium, 63 bgs. H. Hill & Sons
,, 10 cks. ,,
Holland, 63 ,,
,, 317 bgs. J. Owen
Germany, 5 cks. Craven & Co.

Sulphur—
Italy, 15 t. G. Boor & Co.
,, 21 T. Palmer
,, 10 J. Puddy & Co.
,, 5 A. F. White & Co.
,, 200 Brandram Br., & Co.
,, 7 Vokins & Co., Ld.
,, 15 F. C. Devon & Co.

Superphosphates—
Belgium, 60 t. Anglo-Contl. Guano Works

Tallow—
U. States, 19 cks. H. & G. Duffield
Queensland, 13 Aust. Meat Co.
Falkland Is., 5 Anning & Cobb
Holland, 28 Colchester & Woolner
N.S.W., 286 J. Greig
,, 1 L. & I. D. Jt. Co.
,, 143 Phillipps & Graves
,, 20 Hicks, Nash, & Co.
,, 12 J. Morrison & Co.
N. Zealand, 110 Col. Consignment Co.
,, 300 Deering & Rototton
,, 116 N. Z L. & M. A. Co.
,, 65 N. M. & A. Co.
,, 30 J. Greig
,, 132 Dalgety & Co., Ld.
,, 65 Mordaunt Brs.
,, 10 H. Hill & Sons
,, 75 Beresford & Co.
,, 28 J. Grover
,, 34 Brown & Elmslie
Germany, 5 T. Oertzell
France, 123 Price's Pat. Candle Co.
,, 69 Bramwell, Fern, & Co.
,, 71 bgs. Burnett Brs. & Sons
Sweden, 100 Bramwell, Fern, & Co.

Tartaric Acid—
Holland, 12 pks. J. M. Steel & C...

Ultramarine—
Belgium, 9 pks. W. Harrison ...
Holland, 7 J. Barber & ...
,, 6 G. S. N. ...
,, 9 Netherlands S. B. ...
Germany, 20 Argo S. S. ...

Varnish—
U. States, 76 pks. Atlantic Trans...
,, 57 J. R. Francis & ...
Germany, 10 Capes & ...

White Lead—
Belgium, 116 brls. Robertson, Sell... & ...
,, 48 pks. R. Steu...
,, 18 cks. J. L. Lyon & ...
,, 19 Perkins & Hom...
France, 90 W. Hamp...
,, 23 pks. Blundell, Spen... & ...
,, 25 J. Watt & S...
Holland, 12 Kerstedji & ...
,, 40 Burrell & ...
,, 19 A. B. Curtis & ...
,, 57 A. & M. Zimmerma...
,, 60 Kandall B...

Germany, 25 Burrell & Co.
" 50 D. Storer & Sons
" 75 cks. Steinhoff, Sons, & Co.

Wood Pulp—
Holland, 153 pks. C. W. Dickens
" 55 London Paper Mills Co.
" 75 Thames S. T. & L. Co., Ld.
Norway, 160 Murray's Royal P. M. Co.
" 1,680 J. Sharp
" 1,640 Erith & Darford Ltge. Co.
" 50 W. D. Cork
" 2,900 Johnsen & Jorgensen
" 400 bls. W. E. Bott & Co.
Sweden, 300 pks. C. B. R. Maltby
" 250 Tough & Henderson
" 10,168 Henderson, Craig, & Co.

Zinc Oxide—
U. States, 250 pks. M. Ashby, Ld.
Germany, 50 "
" 25 A. Frey & Co
Holland, 120 M. Ashby, Ld.
" 50 cks. J. Matton

Zinc White—
Holland, 80 pks. Spies Brs. & Co.
" 1 J. Owen
Germany, 5 0cks. Perkins & Homer

LIVERPOOL.

Week ending December 7th.

Acetate of Lime—
New York, 1,041 bgs.

Alcohol—
Hamburg, 1 brl.

Ammonia—
Boston, 100 cyldrs J. Simpson & Co.

Antimony Ore—
Halifax, 6 bls. 4 sks.

Barytes—
Antwerp, 149 bgs. 107 cks.
Hamburg, 100 bgs.
Rotterdam, 120

Borate—
Hamburg, 1,001 bgs.

Caoutchouc—
Hamburg, 7 bgs.
Havre, 9 prcls Cunard S.S Co.

Castor Oil—
Calcutta, 217 cs.

Chalk—
Rouen, 2 cs. Co-op. W'sale Society, Ld.

Chemicals *(otherwise undescribed)*
Rotterdam, 1 cs.

Colours—
Antwerp, 2 cks.
Hamburg, 3 4 cs.
Rotterdam, 11 tubs

Cream of Tartar—
Barcelona, 5 butts 4 cks.
Bordeaux, 35

Dyestuffs—
Cochineal
Gd. Canary, 33 bgs. G. S. Bruce
Extract
Havre, 19 cks.
New York, 75 brls. McArthur & Co.
Phil'delphia, 850 bxs. 60 bls.
St. John's, 2 brls. T. Boyd & Co.
Quebracho Extract
Antwerp, 4 cks. J. T. Fletcher & Co.
Saffron
Valencia, 5 cs.
Valonia
Havre, 191 sks. Cunard S.S. Co.
Syra, 439 bgs.

Glucose—
Boston, 500 brls. T. M. Duche & Sons
" 760

Glue—
Antwerp, 2 cks.
Hamburg, 2
Rotterdam, 20 bgs. 120 bls.
Rouen, 48 cks. Co-op. W'sale
2 pks. Society, Ld.

Gutta Percha—
Marseilles, 10 cks.

Limestone—
Antwerp, 5 pks.

Litharge—
Rotterdam, 6 cks.

Manure—
Karachi 12,936 bgs.

Mercuric Oxide—
Hamburg, 4 cks.

Molasses—
N. Orleans, 3,100 brls.

Ochre—
Alicante, 200 bgs.

Paint—
Amsterdam, 30 dms.
Kingston, 1 ck. S. Wright
Marseilles, 20 brls.

Paraffin Wax—
New York, 393 brls. Thompson & Bedford
Philadelphia, 460 Anglo-American Oil Co.

Phosphate—
Ghent, 4,000 bgs. 600 t.

Phosphorus—
Montreal, 65 cs.

Potash—
Hamburg, 5 bgs.
Montreal, 47 brls.

Pyrites—
Huelva, 1,009 t. Matheson & Co.

Red Lead—
Rotterdam, 54 cks.

Rosin—
Hamburg, 8 cs.
Savannah, 4,050 brls.

Saltpetre—
Hamburg, 60 kgs. 30 cks.
Karachi, 125 bgs.

Soap—
Boston, 12 cs. W. Foggitt
Marseilles, 131
New York, 3,000 bxs.
Philadelphia, 8 cs. Kendal, Milne, & Co.

Soap Lyes—
Barcelona, 20 cks.
Marseilles, 20 53 dms.

Soapstone—
Bordeaux, 200 bgs. Geo. G. Blackwell, Sons, & Co.
Genoa, 300 Anglo-Italian T. & P. Co.

Starch—
Amsterdam, 40 cs.
Antwerp, 471
" 206 J. T. Fletcher & Co.
Rotterdam, 160

Stearine—
Antwerp, 14 bgs. 200 cs.
Rouen, 50 bgs. Co-op. W'sale Society, Ld.

Tallow—
Montreal, 100 cks. Hughes, Cook, & Co.
Philadelphia, 200 tcs. Reeves, Parvin, & Co.
" 200 100 brls.

Tannin—
Antwerp, 1 bg.

Turpentine—
Savannah, 700 brls.

Ultramarine—
Rotterdam, 20 cks.

Varnish—
Rotterdam, 3 cks.

Waste Salt—
Hamburg, 608 bgs. & qnty.

White Lead—
Amsterdam, 8 cks
Rotterdam, 185

Wood Pulp—
Halifax, 1,856 bls.
Montreal, 1,027 bdls. Laurentide Pulp Co.
Oporto, 1,000 bls.
Quebec, 3,520 A. Wortheim & Co.

Zinc Oxide—
Antwerp, 5 brls
Hamburg, 25 cks.
New York, 200
Rotterdam, 100

Zinc White—
Amsterdam, 20 cks.
Rotterdam, 25

MANCHESTER.

Week ending December 9th.

Acetate of Lime—
Gothenburg, 250 bgs.
New York, 803

Aluminium Sulphate—
Rotterdam, 90 bgs.

Ammonia—
Rotterdam, 3 cs.

Antimony Salts—
Rotterdam, 15 cks.

Barytes—
Antwerp, 249 bgs.
Hamburg, 73 cks.
Rotterdam, 100 bgs.

Castor Oil—
Antwerp, 12 brls.

Chalk—
Hamburg, 6 cs.
Treport, 2

Chemicals *(otherwise undescribed)*
Hamburg, 6 cs.

Chromium Chloride—
Rotterdam, 1 ck.

Coal Products—
Alizarine
Rotterdam, 120 cks.
Aniline Colours
Rotterdam, 63 cks. 31 cs. 146 brls.
Pitch
Hamburg, 84 cks.

Colours—
Ghent, 1 cs.
Hamburg, 5
Rotterdam, 33 cks. 24

Dyestuffs—
Extract
Antwerp, 5 brls.
Rotterdam, 4 cks.
Rouen, 10

Farina—
Hamburg, 400 bgs.
Rotterdam, 350

Glucose—
New York, 572 brls.
Rotterdam, 4 cks.

Glue—
Antwerp, 3 cks. 12 pks.
Ghent, 40 bls.
Hamburg, 61 bgs.
Rotterdam, 100
Rouen, 14 cks. 55 cs. 65
Treport, 25

Glycerine—
Rotterdam, 2 drms.

Lamp Black—
Gothenburg, 7 cks.

Lead Acetate—
Hamburg, 14 cks.
Rotterdam, 18

Limestone—
Antwerp, 14 crts. 2 cs.

Litharge—
Rotterdam, 12 cks.

Oxalic Acid—
Rotterdam, 20 cks.

Paraffin Wax—
New York, 1,577 brls.

Potash—
Hamburg, 15 cks. 20 dms.

Potassium Chlorate—
Gothenburg, 20 kgs.

Potassium Oxalate—
Rotterdam, 5 cks.

Rosin—
Charleston, 1,039 brls.

Sodium Acetate—
Antwerp, 8 cks.

Sodium Phosphate—
Rotterdam, 20 cks.

Starch—
Antwerp, 394 cs.
Hamburg, 100 bgs.
New York, 600
Rotterdam, 20 165 159 brls. 1 tce.

Stearine—
Antwerp, 139 bgs.

Sulphuric Acid—
Rotterdam, 20 dms.

Tallow—
New York, 29 bds. 100 tcs.
Treport, 31 cks.

Tannin—
Hamburg, 2 cks.

Tartaric Acid—
Rotterdam, 40 cks.

Tin Oxalate—
Rotterdam, 12 brls.

Ultramarine—
Rotterdam, 2 cks.

Wood Pulp—
Frano, 360 bls. W. H. Stott & Co.
" 3,633
Gefle, 13,488
Gothenburg, 2,503
Kallero, 3,138
New York, 278 cs.
Rotterdam, 86 rolls 426 pks.
Sundsvall, 996 bls. W. H. Stott & Co.

Zinc Oxide—
New York, 200 brls.
Rotterdam, 80

HULL.

Week ending December 9th.

Ammonium Acetate—
Rotterdam, 4 brls. Hull & Netherlands S. S. Co.

Barytes—
Amsterdam, 88 cks. Hull & Netherlands S. S. Co.
Antwerp, 73 H. F. Pudsey
" 142 pks. Bailey & Leetham, Ld.
Bremen, 75 cks. Sissons Brs. & Co.
" 20 G. Holmes & Co.
" 50

Caoutchouc—
Helsingfors, 6 pks.

Castor Oil—
Venice, 21 pks. Wilson, Sons, & Co., Ld.

Chemicals *(otherwise undescribed)*
Ghent, 80 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.

Coal Products—
Alizarine
Rotterdam, 126 pks. Hull & Netherlands S. S. Co.
50 brls.
Beta Naphthol
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.
Carbolic Acid
Amsterdam, 25 cks. Hull & Netherlands S. S. Co.
Creosote Salt
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Tar
Stockholm, 10 brls. Wilson, Sons, & Co., Ld.

Colours—
Antwerp, 90 pks. Wilson, Sons, & Co., Ld.
Hamburg, 100 cks. "
" 6 cs.
Rotterdam, 4 brls. 16 cks. 110 pks. Hull & Netherlands S. S. Co.
" 12 cks. Wilson,
" 2 cs. Sons, & Co., Ld.
Rouen, 20 cks. "

Cottonseed Oil—
New York, 350 brls. Wilson, Sons, & Co., Ld.

Cream of Tartar—
Rotterdam, 2 cks. Hull & Netherlands S. S. Co.

Dextrine—
Stettin, 300 bgs. Wilson, 30 bls. Sons, & Ld.

Dyestuffs—
Cutch
Helsingfors, 18 cs. J. Good & Sons
Extract
Helsingfors, 7 cs. J. Good & Sons
Rouen, 47 cks. Wilson, Sons, & Co., Ld.
Indigo
Rotterdam, 6 chts. Hull & Netherlands S. S. Co

Sumach
Palermo, 500 bgs. Wilson, Sons, & Co., Ld.
Trieste, 340 bls. "
Sumach Extract
Trieste, 41 brls. Wilson, Sons, & Co., Ld.

Dyewood—
Antwerp, 163 bgs. Wilson, Sons, & Co., Ld.

Farina—
Hamburg, 100 bgs. Wilson, Sons, & Co., Ld.
Harlingen, 260 bls. Hull & Netherlands S. S. Co

Glucose—
New York, 50 brls. Wilson, Sons, & Co., Ld.
" 50

Glue—
Christiania, 2 bgs. Wilson, Sons, & Co., Ld.
Hamburg, 20 "
" 65
Rouen, 18 pks. "
Rotterdam, 10 bgs. Hull & Netherlands S. S. Co.

Glue Stock—
Ghent, 28 bls. Wilson, Sons, & Co., Ld.
Hamburg, 101 "

Glycerine—
Rotterdam, 21 dms. Hull & Netherlands S. S. Co.

Limestone—
Antwerp, 4 pks. Bailey & Leetham, Ld.

Logwood—
Hamburg, 835 pcs. Wilson, Sons, & Co., Ld.

Phosphates—
Ghent, 304 t.

Potash—
Antwerp, 37 dms. Wilson, Sons, & Co., Ld.
Dunkirk, 68 cks. "
Hamburg, 2 "

Pyrites—
Huelva, 741 t. J. Dalton Holmes & Co.

Red Lead—
Rotterdam, 14 cks. Hull & Netherlands S. S. Co.

Salicylic Acid—
Ghent, 2 cks.

Soap—
New York, 2 brls. Wilson, Sons, & Co., Ld.

Soda—
Antwerp, 43 dms., 16 brls., 220 bgs. Wilson, Sons, & Co., Ld.
" 2 cks.
Fiume, 30 "
Ghent, 220 bgs. "
Hamburg, 74 "

Sodium Sulphite—
Antwerp, 6 dms. Wilson, Sons, & Co., Ld

Starch—
Amsterdam, 20 bgs., 160 cs. Hull & Netherlands S. S. Co.
Antwerp, 200 Wilson, Sons, & Co., Ld.
Bremen, 2,171 pks. Veltmann & Co.
Ghent, 315 cs. Wilson, Sons, & Co., Ld.

Stearine—
Amsterdam, 50 bgs. Wilson, Sons, & Co., Ld.
Antwerp, 70 "
New York, 76 hds. "

Tallow—
Dunkirk, 51 cks Wilson, Sons, & Co., Ld.
New York, 100 trcs. "

Tartaric Acid—
Bari, 16 cks. Wilson, Sons, & Co., Ld
Ghent, 1 "

Turpentine—
Bordeaux, 10 cks. Wilson, Sons, & Co., Ld.
Libau, 50 brls.

Ultramarine—
Bremen, 1 cs. J. Pyefinch & Co.
" 12 cks.
" 4 Veltmann & Co.

Waste Salt—
Hamburg, 990 bgs.

White Lead
Amsterdam, 11 cks. Hull & Netherlands S. S. Co.
Antwerp, 10 Bailey & Leetham, Ld.
Rotterdam, 22 Hull & Netherlands S. S. Co.

Wolfram Ore—
Rotterdam, 4 bgs. Hull & Netherlands S. S. Co.

Wood Pulp—
Christiania, 3,462 bls Wilson, Sons, & Co., Ld.
Gothenburg, 298
Helsingfors, 1,635 J. Good & Sons

Zinc Sulphite—
Rotterdam, 7 pks., 4 brls. Hull & Netherlands S. S. Co.

GLASGOW.

Week ending December 14th.

Acetate of Lime—
Gothenburg, 130 cks.
Philadelphia, 288 bgs.

Antimony—
Rouen, 2 cks.

Antimony Salts—
Rotterdam, 2 cks. J. Rankine & Son

Antimony Sulphate—
Hamburg, 1 ck.

Asbestos—
St. John, N.B., 800 sks.

Barytes—
Amsterdam, 44 cks. J. Rankine & Son
Hamburg, 67, 30 bgs.

Bichromate—
Hamburg, 60 cks.

Castor Oil—
Antwerp, 54 cks.

Chemicals *(otherwise undescribed)*
Hamburg, 1 cs
Rotterdam, 2 J. Rankine & Son

Chrome Ore—
Maeri, 2,920 t. J. & J. White

Chromium Sulphate—
Rotterdam, 7 cks. J. Rankine & Son

Coal Products—
Alizarine
Rotterdam, 142 brls., 1 bx., 45 cks. J. Rankine & Son

Colours—
Antwerp, 1 ck.
Hamburg, 2 cs., 17 cks., 19 pks.
Rotterdam, 98 1 cs., 115 brls., 11 cks., 15 bxs. J. Rankine & Son

Cottonseed Oil—
N. Orleans, 60 brls. W. Houston
New York, 250

Dyestuffs—
Extract
Baltimore, 50 brls.
Rotterdam, 5 cks. J. Rankine & Son
Indigo
Rotterdam, 5 cs. J. Rankine & Son
Indigo Extract
Rotterdam, 4 cks. J. Rankine & Son

Glucose—
New York, 320 brls.

Glue—
New York, 117 brls.
Rotterdam, 40 bgs. J. Rankine & Son
Rouen, 15 cs., 4 cks

Lamp Black—
Gothenburg, 10 cs.
Philadelphia, 10 brls.

Lead Acetate—
Hamburg, 20 cks.

Manganese Ore—
Hamburg, 11 cks.

Molasses—
N. Orleans, 4,700 brls.
" 1,000 Ingram Brs. & Co.
" 500 W. R. Giffen
" 1,500 J. & J. Cunningham
" 400 W. Maclay

Ochre—
Rouen, 164 cks.

Paint—
New York, 1 bx., 82½ brls.
Philadelphia, 10

Paraffin Wax—
Hamburg, 57 cks.
Philadelphia, 620 brls.

Potash—
Hamburg, 65 cks.
Rotterdam, 20 J. Rankine & Son

Potassium Carbonate—
Hamburg, 46 cks.

Potassium Nitrate—
Hamburg, 58 cks.

Red Oil—
Baltimore, 100 brls.

Rosin—
Baltimore, 300 brls.

Saltpetre—
Hamburg, 43 cks.

Soap—
New York, 2000 bxs., 4 cs.

Sodium Nitrate—
Rotterdam, 19 cks. J. Rankine & Son

Sodium Sulphate—
Antwerp, 35 cks.

Starch—
New York, 2,850 sks.
Rotterdam, 20 cs. J. Rankine & Son

Stearine—
Amsterdam, 121 bgs. J. Rankine & Son
Baltimore, 30 tcs.
Rotterdam, 17 cks. "

Talc—
New York. 343 bgs.

Tannin—
Hamburg, 5 cks., 2 cs.

Tartar Emetic—
Hamburg, 1 ck.

Waste Salt—
Hamburg. 101 t., 610 bgs., 126 cks.

White Lead—
Rotterdam, 103 cks., 44 pks. J. Rankine & Son

Wood Pulp—
Christiania, 1440 bls., 11 cs.
Drammen, 12,112 bls.
Gefle, 2,500 Henderson, Craig, & Co.
Gothenburg. 636, 1 prcl.
Skutskar, 1,480 bls. "
Sundswall, 4,353

Zinc Oxide—
New York, 350 brls.

Zinc White—
Rotterdam, 25 pks. J. Rankine & Son

TYNE.

Week ending December 9th.

Antimony Ore—
Tampico, 5,787 sks. Cookson & Co.

Asbestos—
Hamburg, 12 bgs. Tyne S. S. Co.
Rotterdam, 15 crts. "

Barytes—
Rotterdam, 129 bgs. Tyne S. S. Co.

Castor Oil—
Antwerp, 27 brls. Tyne S. S. Co.

Coal Products—
Pitch
Hamburg, 52 cks. Tyne S. S. Co.

Farina—
Hamburg, 30 bgs.

Glue—
Rotterdam, 25 bgs. Tyne S. S. Co.

Limestone—
Antwerp, 8 cs. Tyne S. S. Co.

Phosphate—
Dunkirk, 180 t.
Tampa, 2,155 Langdale's Chemical M. Co.

Plumbago—
Bergen, 2 cks., 1 cs. P. H. Matthiessen & Co.

Potash—
Antwerp, 1 ck. Tyne S. S. Co.

Soap—
Rotterdam, 5 cs. Tyne S. S. Co.

Sodium Acetate—
Antwerp, 8 cks. Tyne S. S. Co.

Starch—
Antwerp, 130 cs. Tyne S. S. Co.
Rotterdam, 20 "

Tartaric Acid—
Rotterdam, 20 cks Tyne S. S. Co.

Wood Pulp—
Christiania, 1,100 bls.
Laurvig, 400 P. H. Matthiessen & Co.

GOOLE.

Week ending December 6th.

Barytes—
Antwerp, 160 bgs., 17 cks.

Caoutchouc—
Boulogne 16 cks.

Chemicals *(otherwise undescribed)*
Hamburg, 1 ck., 4 cs.

Colours—
Antwerp, 59 cks.
Boulogne, 4 1 cs. 38 pks.
Hamburg, 31
Rotterdam, 599 93

Dyestuffs—
Extract
Hamburg, 320 bgs., 22 cks.

Farina—
Delfszbyl, 675 bgs.

Glue—
Antwerp, 1 ck. 3 bs.
Boulogne, 5
Hamburg 1

Potash—
Calais, 9 cks.
Dunkirk, 36 60 dms.
Hamburg, 30

Potassium Carbonate—
Hamburg, 10 cks.

Saltpetre—
Hamburg, 56 cks.
Rotterdam, 100 bgs.

Sodium Nitrate—
Rotterdam, 8 cks.

Waste Salt—
Hamburg, 370 bgs., 180 cks.

GRIMSBY.

Week ending December 9th.

Caoutchouc—
Antwerp, 49 pks.
Hamburg, 1 cs. 22
Rotterdam, 2

Chemicals *(otherwise undescribed)*
Antwerp, 16 pks.
Hamburg, 19 cks.
Rotterdam, 14

Coal Products—
Pitch
Hamburg, 100 cks.

Colours—
Antwerp, 2 cks. 21 pks.
Hamburg, 88 6 cs. 233
Rotterdam, 26

Dyestuffs *(otherwise undescribed)*
Dieppe, 20 cks.

Dyestuffs—
Indigo
Hamburg, 4 cs.

Glue—
Hamburg, 8 cks.

Manure—
Hamburg, 122 cs.

Salt—
Hamburg, 750 bgs.

Zinc Ashes—
Antwerp, 9 cks.

EXPORTS OF CHEMICAL PRODUCTS AT THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending December 13th.

Acids—
Penang, 3 cs. £11
Alkali—
Melbourne, 1 t. £7
Ammonia—
Melbourne, 8 cs. £12
Ammonia (Anhydrous)—
Cologne, 40 cyldrs. £180
Ammonium Carbonate—
Cologne, 1 t. £28
Hamburg, 44 pks. 120
Rotterdam, 10 c. 17
Ammonium Nitrate—
Melbourne, 12 c. £21
Ammonium Sulphate—
Barbadoes, 25 t. £312
Bremen, 100 1,085
Colombo, 1 1 c. 12
Demerara, 70 1 786
Ghent, 39 8 460
Hamburg. 51 590
Philadelphia, 25 280
Arsenic—
B. Ayres, 4 t. 18 c. £113
Bone Ash—
Melbourne, 2 t. £44
Boracic Acid—
Sydney, 1 t. £28
Carbonic Acid Gas—
Bermuda, 22 cs. £11
Caustic Potash
Lyttelton, 4 t. £90
Caustic Soda—
Adelaide, 14 c. £14
Brisbane, 10 21
Gd. Canary, 7 8
Melbourne, 11 11
Nelson, 7 15
Pt. Elizabeth, 4 t. 19 52
Sydney, 4 6
Wellington, 2 2 20
Chemicals *(otherwise unescribed)*
Adelaide, 72 pks. £42
Antwerp, 16 cks. 253
Auckland, 199 21
Bilbao, 3 cs. 27
Boulogne, 3 8 67
Brisbane 41 52
Calcutta. 5 11
Cape Town, 23 51
Durban, 15 75
Falkland I., 32 75
Gothenburg, 15 11
Madras. 20 kgs. 23
Marseilles, 32 30
Melbourne, 143 202
New York, 5 17
Paris. 10 brls. 30 44
Perth. 30 44
Pt. Elizabeth, 7 58
Rotterdam, 7 28
Wellington, 45 37
Citric Acid—
Brussels, 4 kgs. £30
Canterbury, 1 tk. 5
Cologne, 5 34
Hamourg, 14 5 c. 734
Melbourne, 1 108
Odessa, 6 kgs. 41
Coal Products—
Alizarine
Bombay, 25 cks. £60
Boston, 93 294
Hiogo, 30 105
Lyttelton. 10 pks 121
New York, 50 564
Pt. Chalmers. 12 170
St. John, N.B., 16 216
Aniline
Calcutta. 1 cs. £14
Aniline Dyes
Calcutta, 1 cs. £72
Benzol
Boulogne, 50 brls. £95
Treport, 30 cks. 58
Benzoline
Madeira, 4 dms. £5
Carbolic Acid
Amsterdam, 47 cks. £207
Auckland, 6 cs. 6
Hong Kong, 2 6
Paris, 10 104
Shanghai, 2 20 dms. 13
Sydney. 2 6
Coal Tar Dyes
Boulogne, 9 cks. 1 cs. £104
Lyttelton, 6 97
Creosote
Newport News, 300 cks. £80
New York, 260 201
Creosote Salt
Antwerp, 667 bgs. £100
Naphthaline
Antwerp, 1 ck. £9
Hamburg, 5 44
Philadelphia, 667 bgs. 100
Pitch
Amsterdam, 1,163 t. £1,744
Antwerp, 420 630
Dunedin, 15 brls. 9
Hamburg, 62 cks. 180
Pt. Chalmers, 12 8
Rangoon, 55 13
St. John, N.B. 276 279
Sydney, 15 11
Pyridine
Hamburg, 5 dms. £135
Mulheim, 1 25
Tar
Boulogne. 3 cks. £46
Christiania, 50 frkns. 19
Durban, 20 180 dms 50
Hobart, 6 tnlts. 9
Rangoon, 10 10
Singapore, 5 brls. 5
Sydney, 20 100 40
Tar Oil
Boston, 250 cks. £219
Coal Products *(otherwise undes.)*—
Brussels, 2 cks. £20
Melbourne, 25 pks. 7
Copper Sulphate—
Amsterdam, 5 t. 3 c. £124
Marseilles, 5 1 125
Cream of Tartar—
Cape Town, 6 c. £23
Fremantle, 1 t. 78
Lyttelton. 4 16
Melbourne, 1 10 116
Disinfectants—
Auckland. 3 cks £18
Canterbury, 7 cs. 26
Demerara, 5 10
Fremantle, 1 tk. 18
Madras, 59 pks. 53
Melbourne, 25 100 dms. 99
Paris, 70 45
Sydney, 14 42
Glycerine—
New York, 36 t. 9 c. £1,050
Manure—
Adelaide, 931 t. 6 c. £3,012
Colombo, 7 3 22
Demerara, 100 895
Rotterdam, 60 430
Phosphorus—
Adelaide, 5 cs. £40
St. John, N.B., 4 c. 10
Potassium Bicarbonate—
Philadelphia, 2 t. 13 c. £70
Potassium Bichromate—
Lyttelton, 17 c. £23
Potassium Carbonate—
Durban, 1 t. 4 c £22
Potassium Chlorate—
Otago, 11 c. £16
Potassium Cyanide—
Antwerp, 5 t £300
Calcutta, 4 cs. 19
Fremantle, 19 16 c. 2,110
Madras, 5 25
Melbourne, 3 6 342
New York, 16 1,900
Normanton, 20 235
Rockhampton, 1 106
Sydney, 14 70
Townsville, 3 308
Potassium Prussiate—
Antwerp, 28 cks. £515
Calcutta, 11 c. 42
Genoa, 7 144
Potassium Sulphate—
Bordeaux, 4 cs. £23
Salammoniac—
Trebizonde, 6 c. £11
Saltpetre—
Melbourne, 3 t. £49
Newport News, 13 13 c. 218
Sheep Dip—
B. Ayres, { 330 cks. 1,000 cs. 83 t. 2 c. £4,615
Dunedin, 2 15 70
Gisborne, 50 cs. 78
M Video, 200 250
Pt Elizabeth, 3 90
Punta Arenas, 1 10 c. 200 dms. 291
Wellington, 400 cs. 800
Soda—
Singapore, 3 c. £3
Soda Ash—
Pt. Chalmers. 2 t. 6 c. £13
Soda Crystals—
Durban, 1 t. £5
Sodium Bicarbonate—
Barbadoes, 1 t. £6
Madras, 19 c. 29
Pt. Chalmers, 1 2 6
Sodium Bisulphite—
Melbourne, 1 t. 16 c. £15
Sodium Nitrate—
Bermuda, 1 t. £10
Oporto, 2 17
Sulphuric Acid—
Madras. 2 t. 11 c. 26 cs. £45
Moulmein, 1 1 11
Pt. Elizabeth, 1 18 17
Superphosphates—
Colombo, 80 t. £575
Jersey. 2 4
Tartaric Acid—
Dunedin, 4 c. £22
E. London, 2 kgs. 11
Nelson, 5 29

LIVERPOOL.

Week ending December 13th.

Aluminous Cake—
Calcutta, 26 t. £80
Ammonium Carbonate—
Halifax, 5 c. 1 q. £8
Hamburg. 16 24
Marseilles, 10 14
Newfairwater, 2 t. 62
Vera Cruz, 2 3
Ammonium Muriate—
New York, 15 cks. £116
Toronto. 1 t 18 c. 47
Ammonium Sulphate—
Alicante, 10 t. £128
Genoa, 15 197
Las Palmas, 27 9 c. 319
Lisbon, 20 230
Malaga, 10 128
Messina, 1 13
New York, 101 1,150
Norfolk, Va., 101 10 1,167
Philadelphia, 25 4 291
Samarang, 60 11 2 q. 637
Valencia, 150 10 1,831
Venice, 10 125
Arsenic—
Rouen, 51 8 c. £99
Bleaching Powder—
Bombay, 42 cs.
Boston, 713 cks.
Cambrai 17
Cape Town, 100 bxs.
Havana, 100 brls.
Nantes. 21 12
Philadelphia, 59
Piree, 14
Rotterdam, 54 42 pks.
San Francisco, 170
San Sebastian, 50
Tampico, 9
Trieste, 31
Vera Cruz, 50
Boracic Acid—
Antwerp. 1 t. £12
Hamburg, 6 15 c. 2 q. 176
Hiogo, 3 1 70
Portland. 2 1 53
Shanghai 3 1 70
Yokohama, 3 73
Borax—
Antwerp, 61 t. 10 c. £101
Bremen, 3 3 1 q. 55
B. Ayres, 1 2 15
Christiania, 1 4 3 21
Cuidad Bolivar, 2 7
Fremantle, 1 32
Genoa, 2 10 2 40
Hamburg. 48 3 1 780
Matanzas, 1 18
Melbourne, 7 115
Portland, 3 2 2 53
Rotterdam. 7 15 2 129
St. John, N.B., 5 81
Vera Cruz, 3 44
Caustic Potash—
Melbourne, 1 t. £26
New York, 1 5 c. 33
Sydney, 2 1 53
Caustic Soda—
Adelaide, 32 dms.
Alexandria, 20 cks.
Barcelona, 100
Beyrout, 65
Boston, 100 50 brls
B. Ayres, 50
Catania, 43
Dallas. 100
Geelong. 10
Genoa, 593
Gothenburg, 10
Hiogo, 103
Kingston, Ja., 10
Kobe, 327
Lerdo, 150
Lisbon, 30
London, 45
Melbourne, 30 10 pks
Messina, 15
M. Video, 25
Naples, 24
New York, 100
Odessa, 55
Pernambuco, 50
Rotterdam, 70 6 cks.
Seville, 330
Stettin, 18
Tampico. 12
Tarragona, 20
Valparaiso. 25
Vera Cruz, 90
Yokohama, 100
Chemicals *(otherwise undescribed)*
Bilbao 51 t. 8 c. 2 q. £85
Bombay, 9 18 3 45
B. Ayres, 13 10 2 84
Calcutta, 128
Cape Town, 2 3 12
Fremantle, 3 500
Guayaquil, 8 7
Marseilles, 1 19 2 62
Melbourne, 11 6 3 119
Natal, 2 4
New York, 2 10 80
Porto Alegre, 3 7 2 10
Santos, 19 3 5
Seville, 4 19 1 82
Singapore, 5 10 540
Smyrna, 4 10 90
Sydney, 2 32
Tripoli, Syria, 5 95
China Clay—
Baltimore, 610 cks. 770 t.
Barcelona, 160 120 bgs.
Bombay, 195
Boston, 2,940
Johannesburg, 280
Marseilles, 20
Newport News 683
New York 2251 t.
Pernambuco, 7
Portland, 112 10 c.
Rio de Janeiro, 35 17 45 cs.
Citric Acid—
B. Ayres, 4 c. £25
Sydney, 10 3 q. 79
Victoria, B.C., 2 13
Coal Products
Alizarine Oil
Barcelona, 4 pks.
Aniline Colours
Barcelona, 4 cks.
New York, 4 14 cs.
Aniline Salt
Piræus, 20 brls.
Vera Cruz, 20

Carbolacene
Antwerp, 8 kgs.
Calcutta, 100 dms.
Lagos, 20

Carbolic Acid
Bordeaux, 8 c. 1 q. £32
Hiogo, 2 t. 9 2 168
Leghorn, 12 2 33
Odessa, 1 7 2 43
Old Calabar, 8 dms. 7
Rio de Janeiro, 10 49
Rotterdam, 9 10 554
Rouen, 1 14 127
Shanghai, 17 3 q. 107
Vera Cruz, 10 1 13
Yokohama, 6 16 1 1,309

Naphthaline
Dunkirk, 20 t. £50

Pitch
Bilbao, 114 bls,
Salonica, 50 brls.
Vigo, 50

Tar
Pernambuco, 20 brls,

Copper Sulphate—
Algiers, 35 t. 3 q. £816
Beira. 6 c. 3 10
Bordeaux, 4 18 2 119
Cape Town, 6 145
Catania, 9 10 1 217
Cette, 104 5 3 2,570
Marseilles, 89 10 2,205
Melbourne, 5 125
Naples, 2 9 57
Palermo, 4 19 107
Rouen, 21 18 495
San Sebastian, 5 3 2 121
Talcahuano, 4 16 119
Trieste, 9 19 247
Vigo, 6 149

Disinfectants—
Calcutta, 5 t. 17 c. £50
Wellington, N.Z., 1 6 10

Glycerine—
Baltimore, 29 t. 6 c. £1,150
Gothenburg, 5 2 2 q. 185
Hamburg, 7 17 3 289
Kobe, 2 120
Montreal, 18 13 1 760
New York, 51 6 3 1,435
Rotterdam, 22 6 845
Sydney, 4 2 24
Yokohama, 2 9 137

Hydrochloric Acid—
Trinidad, 1 t. 10 c. £16

Magnesia—
Barcelona, 50 cs.
Beyrout, 25
Havre, 23
Odessa, 75

Nitric Acid—
Cuidad Bolivar, 2 cs. £5

Oxalic Acid—
Madras, 14 c. £20

Paint—
Belize, 191 kgs.
Bombay, 31 dms.
Bonny, 12
Campeche, 4 cks.
Calcutta, 20
Callao, 25
Greytown, 9 cs.
Hong Kong, 88
Jeremie, 4 cks.
Kobe, 150
Limon, 20 cs.
Maracaibo, 50 1 ck.
Nassau, 44 pks.
Old Calabar, 5
Opobo, 15 dms.
Pt. Natal, 5 crts.
Pt. Said, 23
Puerto Cabello, 22
Saltpond, 40
Shanghai, 379 10 brls
Teneriffe, 7
Tripoli, 130
Valparaiso, 25
Wellington, 12 2 cks.

Painters Colours—
Alexandria, 25 pks.
Bahia, 21
B. Ayres 43 cks.
Havana, 11 brls. 43
Para, 6 kgs. 45
Parangua, 20
Philadelphia, 13 cks.
Valencia, 5
Vera Cruz, 10

Paraffin Wax—
Boston, 150 cks.
Leghorn, 65 bgs.
Porto Alegre, 45 cks.

Phosphorus—
Kobe, 3 c. £24
Shanghai, 10 cs. 80
St. John's. N'fd., 4 32
Yokohama, 3 c. 24

Phosphorus (Amorph.)—
Shanghai, 50 cs. £525

Potassium Bichromate—
San Sebastian, 5 t. 1 q. £265
Varna, 3 c. 6

Potassium Carbonate—
New York, 17 t. £350

Potassium Chlorate—
Amsterdam, 1 t. £30
Callao, 8 c. 12
Hiogo, 22 3 1 q. 625
Pasages. 2 10 79
Pernambuco, 18 3 33
Rotterdam, 19 31
Yokohama, 5 20 3 155

Salammoniac—
Alexandria, 2 t. £68
Cardenas, 1 c. 3 q. 3
Piræus, 6 11
Salonica, 2 6 82

Salt—
Algoa Bay, 13 t.
Antwerp, 80
Baltimore, 65
Banana, 150
Barbadoes, 100
B. Ayres, 55
Calcutta, 954
Cape Lahou, 14 15 c.
Cape Town, 50
Cleveland, 100
Conakry, 163 1
Dixcove, 6 5
Dunkirk, 20
Degama, 50
Ghent, 204
Gd. Lahou, 20 1
Lagos, 140 10
Landana, 15
Manaos, 50
Manoh, 168
Melbourne, 294 19
Newport News, 440
New York, 165 18
Old Calabar, 149
Opobo, 111
Paranagua, 32 cs.
Pt. Natal, 100
River Cess, 10
W.C.A.,
St. John, N.B., 200
San Francisco, 200
Santos, 1
Sherbro, 425 19 c.
Sierra Leone, 395 2
Summerside, 40
Trinidad, 46
Whydah, 25
Winnebah, 7 10
Yokohama, 10

Saltpetre—
Ceara, 19 c. 2 q. £22
Callao 5 6
Maranham, 5 6
Para, 4 5
Paranagua, 9 3 11
Pernambuco, 5 t. 14 1 125
Rio de Janeiro, 4 9 1 93

Sheep Dip—
B. Ayres, 20 t. 12 c. £639
Rio Grande, 11 14

Soap—
Acrra, { 300 bxs. 220 cs.
Adelaide, 640 pks.
Algoa Bay, 11
Anamaboe, 30
Antofagasta, 5
Antwerp. 30
Auckland, 550
Belize, 350
Bluefields, 110
Bombay, 775
Boston, 2 bls.
B. Ayres, 1
Calcutta, 50 220 500 bdls.
C. C. Castle, 50
Cape Town, 2,611 9
Christchurch, 400
Colombo, 85 25
Conakry, 652
Dunedin, 750
E. London, 800
Galata, 80
Gibraltar, 469
Greytown, 100
Half Jack, 35
Halifax, 200
Karachi, 50
Lagos, 400
Larnaca, 20
Madras, 29
Malta, 900
Mannheim, 1,859
Montego Bay, 100
Montreal, 500
Para, 1,200
Rangoon, 265 70
Rotterdam, 721
St. Croix, 1
St. John, N.B., 200
Salonica, 150
San Juan, 350
Shanghai, 85
Sherbro, 15
Singapore, 1
Smyrna, 100
St. John's, N'fd. 350
Sydney, 304
Swakapoint, 50
Teneriffe, 150
Toronto, 1,500
Trieste, 3
Trinidad, 820
Victoria, B. C., 40
Wellington, 800

Soda Ash—
Aalborg, 250 bgs.
Adelaide, 58 cks.
Antwerp, 600
Boston, 2,864 220 tcs. 36
Calcutta, 200 177
Hamburg, 100 24
Hiogo, 104
Kobe, 50
Landskrona, 320
Leghorn, 60 60
Lerdo, 80
Malmo, 160
Maranham, 30 brls.
Melbourne, 112
Mexico City, 40
New York, 85
Oporto, 7
Nyoko, 77
Philadelphia, 1,040 44 tcs.
Portland, Or., 106
Puerto Cabello, 13 brls.
Rio de Janeiro, 380
San Francisco, 573
Santos, 20
Savona, 150
Smyrna, 250
Sydney, 333
Toronto, 107
Trieste, 100
Turin, 424
Venice, 149
Wallaceburg, 400
Yokohama, 503

Soda Crystals—
B. Ayres, 50 bgs.
Cape Town, 25 kgs.
Gibraltar, 30 brls.
Malta. 50
M. Video, 18
Newcastle, 203
Oporto, 50
Smyrna, 20

Sodium Acetate—
Melbourne, 10 cks.

Sodium Arseniate—
Boston 13 cks.

Sodium Bicarbonate—
Adelaide, 100 pks.
Alicante. 35 kgs.
Antwerp 10 cks.
Barcelona, 330 11
Bombay, 250
B. Ayres, 40
Calcutta, 500
Cape Town, 25 20
Colombo, 15
Hobart, 40
Marseilles, 20 20
M. Video, 30 50 brls.
Moulmein, 6
Newcastle, 100
New York, 50
Para, 10
Rangoon, 10
Singapore, 4
Sydney, 40
Valencia, 20 10
Windsor, Ont , 75
Yokohama, 300

Sodium Carbonate—
Boston, 196 brls.

Sodium Chlorate—
Boston, 175 kgs.

Sodium Silicate—
Gijon, 10 brls.

Starch—
Salonica, 20 cs. 40 sks.

Sulphur—
Maranham, 4 t. 18 c. £103
Natal, 1 19 2 q. 12
Newport News, 9 12
Pernambuco. 2 5 3 16

Sulphuric Acid—
Kingston, Jam., 1 t. 3 c. £9
Valparaiso, 2 13 24

Superphosphates—
Adelaide, 1,840 t. £5,367
Cullera, 200 468
Genoa, 49 5 c. 38
Lisbon, 98 10 1 q. 303
N. Orleans, 200 300
Valencia, 90 5 225

Tin Crystals—
Trinidad, 1 t. 14 c. 3 q. £169

Varnish—
Bombay, 70 dms.
B. Ayres, 10 cs.
Campeche, 1
Cephalgnia, 1
Salonica, 1
Valparaiso, 30

White Lead—
Pernambuco, 1 ck.

Zinc Chloride—
Bombay, 14 t. 17 c. 2 q. £245

MANCHESTER.

Week ending December 13th.

Alkali—
Beyrout, 25 cks.

Ammonium Carbonate—
Tunis, 5 kgs.

Bones—
Frankfort, 539 bgs.
Oise, 146

Borax—
Tunis, 1 ck.

Caustic Soda—
Beyrout, 50 dms.
Bombay, 1

Chalk—
Rouen, 48 cks.

Chemicals (*otherwise undescribed*)
Acre, 10 brls.
Bombay, 68
Djerba, 5
Mersyne, 140
Montargis, 3 cs.
Tunis, 20 brls.

Coal Products (*otherwise unspec.*)—
Antwerp, 4 brls.
Germany, 30 cks.
Hamburg, 2
Rouen, 11 dms.
Switzerland, 5

Coal Products—
Aniline Colours
Alexandria, 2 cs.
Germany, 1
Aniline Oil
Hamburg, 10 dms.
Aniline Salt
Germany 10 cks.
Carbolic Acid
Antwerp, 40 brls.
Germany, 49 cks.
Rouen, 4 1 cs. 180
Extract
Antwerp, 1 ck.
Paris, 4
Rouen, 15
Naphthylamine
Hamburg, 43 cks.

Copperas—
Acre, 10 brls.
Alexandria, 242

Cottonseed Oil—
Tripoli, B., 10 brls.

Dyestuffs (*otherwise unaescribed*)
Rouen, 1 ck.

Gamma Acid—
Hamburg, 4 cks.

Glue—
Germany, 10 cks.
Rotterdam, 24

Glycerine—
Stettin, 30 dms.

Linseed Oil—
Alexandria, 50 brls.
Jaffa, 1
Mersyne, 2

Magnesia Salts—
Gothenburg, 1 ck.

Paint—
Jaffa, 141 kgs.

Painters' Colours—
Beyrout, 20 kgs.
Red Lead—
Beyrout, 20 cks.
Salammoniac—
Beyrout, 10 cks.
Tunis, 2 brls.
Salt—
Germany, 400 t.
Saltpetre—
Tunis 1 ck.
Sodium Bicarbonate—
Jaffa, 6 cks.
Sodium Sulphide—
Germany, 1 kg.
Sulphur—
St. John's N'fd., 667 bgs.
Turpentine—
Bombay, 32 dms.
Varnish—
Reval, 1 ck.
Venetian Red—
Jaffa, 3 brls.
Zinc Chloride—
Bombay, 12 cks.

HULL.

Week ending December 9th.

Alkali—
Stettin, 134 bgs.
Chemicals *(otherwise undescribed)*
Amsterdam, 29 cks. 151 pks.
Antwerp, 26 2 cs.
Christiania, 22 2,206 slbs.
Copenhagen, 3
Drontheim, 10
Gothenburg, 32
Ghent, 2
Hamburg, 41 209
Helsingfors, 7
Reval, 20 21 pks.
Riga, 3
Rotterdam, 30 70 / 334 bgs.
Rouen, 43
Stavanger, 2 9 dms.
Stettin, 4 pks.
China Clay—
Christiania, 3 t.
Gothenburg, 20
Coal Products—
Pitch
Antwerp, 134 t.
Dunkirk, 252
Tar
Amsterdam, 10 cks.
Danzig, 2
Rotterdam, 5
Stettin, 6 pks.
Cottonseed Oil—
Amsterdam, 32 t. 19 c.
Antwerp, 80 13
Copenhagen, 4 5
Danzig, 17
Ghent, 10
Gothenburg, 18
Hamburg, 13 1
Konigsberg, 2 8
Rotterdam, 46 3
Rouen, 34 10
Dyestuffs *(otherwise undes.)—*
Stettin, 60 bgs.
Glue—
New York, 52 cks.
Horn Pith—
Ghent, 3 bgs.
Linseed Oil—
Antwerp, 2 t. 2 c
Christiania, 3 35
Christiansand, 2 9
Drontheim, 3 4
Gothenburg, 7
Hamburg, 1 15
Rouen, 2 15
Painters' Colours—
Amsterdam, 29 cks.
Antwerp, 7 170 pks.
Copenhagen, 10
Dunkirk, 10
Hamburg, 1
Harlingen, 2
New York, 245 80 dms. 40 pks.
Rotterdam, 7 1 cs. 4
Rouen, 8
Stavanger, 12 dms
Stettin, 55 1
Rosin—
Gothenburg, 65 brls.
Soap—
Rouen, 5 cs.
Varnish—
Antwerp, 2 cs.
Copenhagen, 1
Hamburg, 5 cks. 1
Helsingfors, 7
Stockholm, 1

GLASGOW.

Week ending December 14th.

Ammonium Carbonate—
Hamburg, 3 t. 8 c.
Ammonium Sulphate—
Amsterdam, 39 t. 15 c. 2 q.
Demerara, 290 2 2
Leghorn, 10
Samarang, 72
Antimony—
Canada, £40
Basic Slag—
Demerara, 26 t.
Bones—
Antwerp, 10 t.
Boracic Acid—
Hiogo, £118
Rotterdam, 26,200 bricks
Yokohama, 32
Borax—
Sydney, £184
Castor Oil—
Sydney, £35 10s
Chemicals *(otherwise undescribed)*
Calcutta. £30
China Clay—
Alumdahad. £31
Coal Products—
Carbolic Acid
Rotterdam. £122
Creosote Oil
France £597
Pitch
Antwerp, £521
Bombay. 20
Christiania. 50
Tar
Bombay, £30
Karachi, 55
Penang 81 10s.
Singapore. 146
U.S.A., 120
Copperas—
Bombay, £95
Karachi, 30
Dextrine—
U.S.A., £470
Dyestuffs—
Indigo Extract
Canada, £20
Glucose—
Cape Town, £500
Lead Acetate—
Bombay, £ 90
Lead Nitrate—
France, £25
Linseed Oil—
Cape Town, 1 t. 19 c. 2 q.
Christiania, 4 3
Havana, 7 17 1
Hiogo, 4 3 2
Pietermaritzburg. 2 10
Shanghai, 3 16 3
Trinidad, 4 13 2
Litharge—
Bombay, £40
Manure—
Demerara, 24 t. 1 c. 2 q
Durban, 10
Paint—
Amsterdam, £67 10s.
Bangkok, 118
Calcutta, 392
Demerara, 102
Hiogo 54
Hong Kong, 70
Macassar, 68
Pietermaritzburg, 104
Singapore, 384
Painters' Colours—
Fremantle, £26 17s.
Natal. 20
Shanghai 416
Sydney, 785
Trinidad, 52
U.S.A.. 87
Paraffin Residium—
Rotterdam. £45
Paraffin Wax—
Cape Town, £220
Christiania, 30
France, 176
Genoa, 28
Hiogo, 15 t. 11 c.
Italy, 3,259
Leghorn, 186
Marseilles, 72
Singapore, 35
Phosphate—
Trinidad, 3 t. 18 c 2 q
Potassium Bichromate—
Antwerp, £187
Bombay, 155
Christiania, 22
Genoa, 22
Hiogo, 4 t. 2 c. 1 q.
Karachi, £34
Leghorn, 148
Yokohama, 10 3 q.
Potassium Prussiate—
New York. £435
Red Lead—
Calcutta, £20 10s.
Salt—
Sydney, 7 t. 2 c
Slag—
Durban, 30 t.
Soap—
Bombay, 4 t. 7 c. 1 q.
Canada, 1 0
E. London. 20 5
Penang. 5 11 2
Singapore, 2 2
Trinidad, 2 7 1
Soap Lyes—
U.S.A. 11 t. 11 c.
Sodium Bichromate—
Antwerp, 4 t. 17 c.
Bombay, 2 14 2 q.
Stannine—
Trinidad £97
Stannous Chloride—
Georgetown, £46
Sulphur—
Demerara. £44
Sulphuric Acid—
Bombay, £1,230
Tallow—
Rotterdam. 3 t. 12 c.
Trinidad. 1 14 3 q.
Turpentine—
Singapore, £29
Varnish—
Amsterdam, £3 14s.
Calcutta, 23
White Lead—
Natal, £45

TYNE.

Week ending December 9th.

Alkali—
Christiania, 1 t. 3 c.
Alum Waste—
Copenhagen, 10 t. 16 c. 2 q.
Antimony—
Hamburg, 15 t.
Rotterdam, 3
Antimony (Regulus)—
Hamburg, 5 t.
Rotterdam. 18
Barium Binoxide—
Hamburg, 2 t. 5 c. 1 q.
Bleaching Powder—
Antwerp, 4 t. 1 c.
Bergen, 5 13 2 q.
Christiania, 15 2
Ghent, 25 4 1
Gothenburg 40 3 2
Hamburg, 50 2
Riga, 51 16
Rotterdam, 25 4 1
Trondhjem, 9 3
Bone Grease—
Genoa, 6 t. 4 c.
Borax—
Rotterdam, 1 t.
Caustic Soda—
Antwerp, 30 t. 9 c. 1 q.
Bergen, 1 14 3
Christiania. 8 14
Copenhagen, 1 10
Gothenburg, 5 2
Hamburg, 1
Helsingfors, 3
Rotterdam, 14 10 1
Trondhjem 1 9
Chlorcals *(otherwise undescribed)*
Piræus, 7 c. 2 q.
Coal Products—
Carbolic Acid
Rotterdam, 35 cks.
Naphthalene
Riga. 30 t. 18 c.
Tar
Copenhagen, 12 t. 5 c. 3 q.
Fluor Spar—
Gothenburg, 52 t.
Litharge—
Antwerp, 2 t. 17 c. 2 q.
Christiania, 1 2
Copenhagen, 10 1
Hamburg, 3 16 2
Riga. 24 11
Magnesia—
Antwerp. 1 t. 6 c. 3 q.
Hamburg, 12 2
Paint—
Antwerp, 1 t.
Christiania. 6 c.
Civita Vecchia 2 1 q.
Gothenburg. 2
Hamburg, 1 5 2
Red Lead—
Antwerp. 12 cks.
Amsterdam, 2 t. 12 c 3 q.
Christiania, 3 15
Genoa, 27 1 2
Gothenburg, 5 8
Hamburg, 19 6 1
Rotterdam, 1 1
Soda—
Rotterdam, 19 t. 13 c. 1 q.
Soda Ash—
Christiania. 5 t. 1 c. 2 q.
Gothenburg. 40 5
Trondhjem, 10
Sodium Hyposulphite—
Genoa, 65 t. 0 c. 3 q.
Sodium Sulphate—
Aalborg. 21 t.
Antwerp, 62
Riga, 24 19 c.
Sodium Sulphide—
Genoa, 2 t. 1 c. 3 q.
Sulphur—
Christiania, 100 t.
Gothenburg. 90
White Lead—
Copenhagen, 2 t. 2 c. 2 q.

GOOLE.

Week ending December 6th.

Chemicals *(otherwise undescribed)*
Amsterdam, 1 ck.
Antwerp, 18 2 dms.
Boulogne. 8
Hamburg. 2
Coal Products *(otherwise undes.)—*
Amsterdam, 135 cks.
Antwerp. 105 3 cs.
Boulogne, 30
Ghent, 12 3 dms.
Hamburg, 76 30 5 pks.
Manure—
Ghent, 218 bgs.
Painters' Colours—
Antwerp, 3 cs.
Boulogne, 17 cks. 12 4 dms
Ghent, 2 pks.

GRIMSBY.

Week ending December 9th.

Alkali—
Dieppe, 7 cks.
Port au Prince, 35 dsls.
Caoutchouc—
Helsingborg, 1 ble.
Chemicals *(otherwise undescribed)*
Malmo, 2 cks. 10 cs
Coal Products *(otherwise undes.)—*
Dieppe, 143 cks. 2 cs.
Painters' Colours—
Antwerp 1 ck. 4 cs
Hamburg, 6 / 4 kgs.
Rotterdam, 1

PRICES CURRENT.

WEDNESDAY, Dec. 20, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % .. .. per cwt.	7/-	&	9/3
,, Glacial .. .. ,,		35/-	
Arsenic S.G. 2,000° .. .. ,,	1	2	6
Fluoric .. .. per lb.	0	0	3¾
Muriatic (Tower Salts), 30° Tw. .. .. .. per bottle	0	0	9
,, (Cylinder), 30° Tw. .. .. ,,	0	3	0
Nitric 80° Tw. .. .. per lb.	0	0	1½
Nitrous .. .. ,,	0	0	1½
Oxalic .. .. nett ,,	0	0	3
Phosphoric, 1750° .. .. ,,	0	0	10¾
Picric .. .. ,,	0	1	2
Sulphuric (fuming 50 %) .. .. per ton	15	10	0
,, (monohydrate) .. .. ,,	5	10	0
,, (Pyrites, 168°) .. .. ,,	3	0	0
,, (,, 150°) .. .. ,,	1	5	0
,, (free from arsenic, 145°) .. .. .. ,,	1	7	6
Sulphurous (solution) S G. 1025 .. .. .. ,,	3	0	0
Tannic (pure) .. .. per lb.	0	1	2½
Tartaric .. .. ,,	0	0	11¾
Arsenic, white powdered .. .. nett per ton	19	10	0
Alum, loose lump .. .. ,,	4	5	0
Alumina Sulphate (pure) .. .. ,,	3	17	6
Aluminoferric .. .. ,,	2	2	6
Aluminium (Ingot metal 98/99 ¾ %) .. .. nett ,,	148	0	0
Ammonia, Anhydrous .. .. per lb.	0	1	2
,, '880 = 28° B. .. .. ,,	0	0	2¾
,, = 24° B. .. .. ,,	0	0	1¾
,, Carbonate .. .. nett ,,	0	0	3¾
,, Muriate .. .. per ton	24	0	0
,, ,, (sal-ammoniac) 1st & 2nd .. per cwt.	40/-	&	38/-
,, Nitrate .. .. per ton	32	10	0
,, Phosphate .. .. per lb.	0	0	5
,, Sulphate (grey) London .. .. .. per ton	11	2	6
,, ,, (grey) Hull .. .. ,,	11	2	6
Aniline Oil (pure) .. .. per lb.	0	0	4½
Aniline Salt ,, ... ,,	0	0	4¼
Antimony .. .. per ton	39	15	0
,, (tartar emetic) .. .. per lb.	0	0	8
,, (golden sulphide) .. .. ,,	0	0	9
Barium Chloride .. .. per ton	7	0	0
,, Carbonate (native) .. .. ,,	3	15	0
,, Sulphate (native levigated) .. .. .. ,,	40/-	to	60/-
Bleaching Powder, 35 % .. .. nett ,,	6	0	0
,, Liquor, 7 % .. .. ,,	3	10	0
Bisulphide of Carbon .. .. ,,	12	15	0
Chromium Acetate (crystal) .. .. per lb.	0	0	6¼
Calcium Chloride .. .. per ton	2	10	0
China Clay (at Runcorn) in bulk .. .. ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % .. .. nett per lb.	0	0	6¾
Magenta .. .. ,,	0	3	9
Anthracene, 3 % A, f.o.b. London .. per unit per cwt.	0	0	4
Benzol, 90's .. .. per gallon	0	0	8½
,, 50/90 ,, ... ,,	0	3	10½
Carbolic Acid (crude 60°) .. .. ,,	0	2	10
,, (crystallised 40°) .. .. .. per lb.	0	0	10½
,, (liquid 95/97%) .. .. .. per gallon	0	1	3
Creosote (ordinary) .. .. ,,	0	0	3¾
,, (filtered for Lucigen light) .. .. .. ,,	0	0	4
Crude Naphtha 30% @ 120° C. .. .. .. ,,	0	0	4½
Grease Oils, 22° Tw. .. .. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston .. .. .. ,,	1	12	0
Solvent Naphtha, 90% at 160° .. .. per gallon	0	1	4
Copper .. .. per ton	67	10	0
,, Sulphate .. .. ,,	25	0	8
,, Oxide (copper scales) .. .. ,,	68	0	0
Glycerine (crude) 80% .. .. ,,	31	0	0
,, (distilled S.G. 1260°) .. .. ,,	51	10	0
Iodine .. .. nett, per oz.	0	7	½
Iron Sulphate (copperas) .. .. per ton	1	5	0
,, Sulphide (antimony slag) .. .. ,,	2	0	0
Lead (sheet) .. .. ,,	18	0	0
,, Litharge Flake (ex ship) .. .. ,,	20	0	0
,, Acetate (white ,,) .. .. ,,	24	10	0
,, ,, (brown ,,) .. .. ,,	20	0	0
,, Carbonate (white lead) pure .. .. .. ,,	24	0	0
,, *Nitrate* .. .. ,,	26	0	0
Lime, Acetate (brown) (ex ship) .. .. .. per ton	6	5	0
,, ,, (grey) (ex ship) .. .. ,,	9	0	0
Magnesium (ribbon and wire) .. .. per oz.	0	2	3
,, Chloride (ex ship) .. .. per ton	3	0	0
,, Carbonate .. .. per cwt.	1	17	6
,, Calcined Magnesia .. .. per ton	13	10	0
,, Sulphate (Epsom Salts) .. .. .. per ton	3	5	0
Manganese, Sulphate .. .. ,,	14	5	0
,, Borate .. .. per cwt.	2	0	0
,, Ore, 70% .. .. per ton	3	10	0
Methylated Spirit, 61° O.P .. .. per gallon	0	2	0
Naphtha (Wood), Solvent .. .. ,,	0	2	10
,, ,, Miscible, 60° O.P. .. .. .. ,,	0	3	7
Oils:—			
Cotton-seed .. .. per ton	21	0	0
Linseed .. .. ,,	23	10	0
Stearine .. .. ,,	27	0	0
Phosphorus (Yellow) .. .. per lb.	0	1	11
,, (red) .. .. ,,	0	2	8
Potassium Bichromate .. .. nett ,,	0	0	4½
,, Carbonate, 90% (ex ship) .. .. .. per ton	19	10	0
,, Chlorate .. .. per lb.	0	0	3½
,, Cyanide, 98 % .. .. ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % .. .. per ton	25	10	0
,, ,, ,, 75/80 % .. .. ,,	22	0	0
,, Potash Hydrate Liquid 50 % .. .. ,,	13	10	0
,, Nitrate (refined) .. .. ,,	21	5	0
,, Permanganate .. .. per cwt.	2	12	6
,, Prussiate Yellow .. .. per lb.	0	0	7½
,, Sulphate, 90 % (ex ship) .. .. .. per ton	9	15	0
,, Muriate, 80 % ,, ... ,,	9	0	0
Silver (metal) .. .. per oz.	0	2	3½
Sodium (metal) .. .. per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % .. nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % .. ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) .. .. ,, ,, (f.o.r. w'ks.)	4	7	6
,, ,, (Soda Crystals) .. .. .. ,, ,, (f.o.r. w'ks.)	2	15	0
,, Acetate (ex-ship) .. .. ,,	14	0	0
,, Arseniate, 45 % .. .. ,,	13	10	0
,, Chlorate .. .. per lb.	0	0	3¾
,, Borate (Borax) .. .. nett per ton	15	10	0
,, Bichromate .. .. ,, per lb.	0	0	3¼
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	10	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	0	0
,, ,, (60 % Caustic Soda) .. ,, ,, (10 ton lots)	8	0	0
,, ,, (pure liquor 90° Tw.) .. .. ,, (10 ton lots)	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) .. .. ,,	6	15	0
,, Hyposulphite .. .. ,,	6	5	0
,, Manganate, 25 % .. .. ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool .. .. per cwt.	0	7	9
,, Nitrite, 98 % .. .. per ton	26	0	0
,, Phosphate .. .. ,,	10	10	0
,, Prussiate .. .. per lb.	0	0	5½
,, Silicate (glass) .. .. per ton	4	10	0
,, ,, (liquid, 100° Tw.) .. .. ,,	3	10	0
,, Stannate, 40 % .. .. per cwt.	3	10	0
,, Sulphate (Salt-cake) .. .. per ton	1	7	6
,, ,, (Glauber's Salts) .. .. .. ,,	1	10	0
,, Sulphide (crystals) .. .. ,,	6	10	0
,, Sulphite .. .. ,,	5	15	0
Strontium Hydrate, 100 % .. .. ,,	9	10	0
Sulphocyanide Ammonium, 95% .. .. per lb.	0	0	6
,, Barium, 95 % .. .. ,,	0	0	4¾
,, Potassium .. .. ,,	0	0	7
Sulphur (Flowers) .. .. per ton	7	5	0
,, (Roll Brimstone) .. .. ,,	6	2	6
,, Brimstone: Best quality .. .. ,,	4	12	6
Superphosphate of Lime (26 %) .. .. ,,	2	10	0
Tallow .. .. ,,	28	0	0
Tin Crystals .. .. per lb.	0	0	10
,, English Ingots .. .. per ton	107	10	0
Zinc (Spelter) .. .. ,,	20	5	0
,, Chloride (solution, 100° Tw.) .. .. .. ,,	7	10	0
,, Sulphate, Crystal .. .. ,,	7	10	0

THE

CHEMICAL TRADE JOURNAL

AND

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LATE ADVERTISEMENTS.

NO. 2 Devil Disintegrator—not used more than half-dozen times. What offer.—Hale & Thompson, Dunedin House, 2, Basinghall-avenue, London, E.C.

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Advertisements intended or insertion in the current week's issue should reach the office by **Thursday morning** at the latest.

THE FRINGE OF REFORM.

FOR years we have persisted in our wasteful system of burning fuel, with all the characteristic conservatism of the true Briton, and have looked upon the warnings of some of our ablest political economists with all the scepticism and distrust that are bred by commercial supremacy and industrial pre-eminence. During latter years, many pioneer inventors have sought to show, by practical results, the economies that can be introduced even in the combustion of solid fuel, but they have, so far, failed to arrest the serious attention of the bulk of our large fuel consumers.

Without doubt, there are many industries in which the use of solid fuel cannot be supplanted by liquid or gaseous fuel—that is to say, as far as our present state of knowledge enables us to judge—but assuredly the time is not far distant when it will be imperative for us to reserve our supplies of solid fuel for the particular processes for which it is essential, and employ other forms of fuel in those processes in which the source of heat is optional.

For some years now, both gaseous and liquid fuel have been employed as substitutes for coal in many directions, and though liquid fuel has not achieved all that was promised for it when first introduced, yet during the last few years great strides have been made in its use at home and abroad. There have been many factors in this progress, one of which has been the close attention given of late to automobiles, operated by hydro-carbon vapours, and also the use of petroleum burners for heating rapid tubular boilers. Nevertheless, the rate of advancement in this country as regards the general adoption of liquid fuel, has been, and is, comparatively tardy; and we think it will be due chiefly to the extreme pressure which will soon be put upon Russian coal-users to adopt some cheaper form of fuel than solid coal, rather than our own efforts, that we shall see a more rapid development in the use of liquid fuel in the near future.

Much has been said of late about the scarcity of coal in the south of Russia, and the situation is becoming critical. It is said that the coal from the Donetz which is delivered at present is of very inferior quality. Eight years ago the metallurgical works of the south burnt 19,000 truck-loads of coal from the Donetz. At present the consumption has risen as high as 150,000 truck-loads, about 100,000 truck-loads not being counted which are derived from coal mines belonging to the works. The aggregate export of coal from the Donetz amounts to 527,000 wagon-loads; while ten years ago no more than 210,000 were exported. The demand for fuel for the gas, salt, and other works has increased in about the same proportion.

At present the crisis seems to have reached its climax, Russian coal not being procurable, while English coal is getting dearer every day. When the stores of English coal in Odessa are exhausted, it is not improbable that many factories will have to be closed, while the population at large

will likewise be in a very awkward position. Such a situation, arising in a district so near to one of the largest petroleum producing centres of the world, cannot, we think, fail to result in a far more general use of the astatki or masut accumulating at the Caucasian petroleum refineries, the production of which in itself must have increased rapidly of late, if the number of new companies which have been formed affords any guide to the output.

In a measure, the Caucasus has been the home of liquid fuel, and if the practical men of this district have to cope with the rapidly increasing scarcity, and advanced price of coal, we feel convinced that methods of burning liquid fuel will soon be devised of far greater perfection than those at present in vogue. Invention is the offspring of necessity.

When this comes to pass, such important improvements will not be hidden or lost sight of in the wilds of the Caucasus, but will be rapidly adopted in neighbouring countries. It is to be hoped that Great Britain will be among the first to share the benefits thus derived from the needs and necessities of Russian coal-users.

STRIKES IN 1899.

THEIR SCOPE AND CAUSE.

ALTHOUGH the total number of persons affected by trade disputes in 1899 is large, it is somewhat reassuring to find that, in proportion to the total number of persons industrially employed throughout the United Kingdom, it forms but a small percentage. In order to bring out this point the following statement has been prepared, the numbers of the working population on which the percentages are based being taken from the Home Office returns for 1896, except as regards the building and miscellaneous trades, in which cases the census figures of 1891 have been used in default of later information:—

Groups of Trades.	Percentage proportion of working population involved in disputes in		Corresponding mean percentage in
	1898.	1897.	1894-98.
Building trades	2·0 ..	1·8 ..	2·2
Mining and quarrying	21·1 ..	5·9 ..	14·2
Metal, engineering, & shipbuilding	1·9 ..	8 8 ..	4·4
Textile trades	2·0 ..	3·0 ..	3·2
Clothing trades	0·6 ..	1·2 ..	2·5
Printing trades	0·1 ..	0·3 ..	0·1
Woodworking trades	0·9 ..	0 8 ..	0·7
Glass, pottery, & chemical trades	0·8 ..	1·8 ..	1·2
Food and tobacco trades	0·2 ..	0·1 ..	0 2
Miscellaneous trades	0·2 ..	0 6 ..	0 3
All trades except agricultural labourers, seamen and fishermen	3·0 ..	2·8 ..	3·1

From this it appears that the proportion of workpeople directly and indirectly affected by disputes was 3·0 per cent. in 1898, 2·8 per cent. in 1897, and averaged 3·1 per cent. in the five years 1894 8. During the wholeof this period, the agricultural and fishing and other seafaring occupations have been very slightly affected by disputes, and if the numbers employed under these heads are taken into account the proportion of the working population concerned in disputes presents a still lower figure. The high percentage for the mining industry in 1898 is of course due to the great dispute in South Wales.

Concerning the magnitude of disputes the report says the two principal elements which make up the magnitude or importance of trade disputes are—(1) the number of persons involved and (2) the duration of working days. A tabulated statement emphasises the fact that the magnitude of the total figures in most years is due not so much to the large number of disputes as to the effect of one or at most a few principal disputes. In the period dealt with, 1894-8, 1896 was the minimum year—that is, the one in which there were no specially great disputes, each of the other years being distinguished by special disputes of great importance. Thus in 1894 70,000 Scottish miners were engaged in a long dispute. In 1895 there was a prolonged dispute in the boot and shoe trade, involving 46,000 operatives. In 1897 there was the engineering dispute, which lasted 28 weeks and affected 47,500 workpeople. In 1898 the principal dispute, that in the South Wales coal trade, involved 100,000 persons, and was responsible for over three-fourths of all the lost time chargeable to the disputes of the year, while, on the other hand, 461 of the other disputes involved in the aggregate only 17,222 workpeople, and accounted for about 2¼ per cent. of the total aggregate duration in working days.

On the causes of disputes we are told that, as usual, disputes as to wages occupy the leading place. Out of a total of 200.769 persons engaged in disputes from all causes 176,392, or 88 per cent. of the total, were involved in disputes on account of differences as to wages, as compared with 44·1 per cent. in 1897, and 64·9 per cent. in 1896.

FIRE AT AN OIL MILL.

A FIRE broke out shortly after three o'clock on Monday morning at Messrs. H. M. Leask and Co.'s premises, 14 and 15, Sir John Rogerson's Quay, Dublin, and continued for several hours, until the entire concern had been gutted. Messrs. Leask are linseed crushers and manufacturers of linseed cake and linseed oil, so that their stock-in-trade is of a highly inflammatory character. The fire broke out in the basement, where the chief articles in storage were machinery and a tank of oil, while in the higher floors of the building more oil was stored, the total quantity being 2,500 gallons. The premises were built about twenty years ago, and constitute a very substantial structure. The depth is about 100 feet, while there is a frontage of about 45 feet. Captain Purcell, who was in command of the fire brigade, entertained serious doubts as to whether any good could be accomplished, so far as Messrs. Leask's premises were concerned, by an attempt to extinguish the flames, and was for some time inclined to devote all his attention to the surrounding houses only. However, on the chance of saving some of Messrs. Leask's property he entered into a hopeless attempt to stifle the fire. All the lines of hose at his command were employed, and two steamers were requisitioned. At all points where flame burst forth it was either reduced or held in check until eventually one of the great oil tanks, the framework of which had been consumed, fell into the basement with an awful crash and raised a tremendous volume of flame which it was absolutely impossible to cope with Great tongues of fire darted from every window and every grating in the building, and it became evident that the higher storeys must inevitably be destroyed. The other tanks of oil all fell a prey to the fire, and the flames illuminated the sky for miles around the city. The work of the firemen was rendered much more difficult by the fact that the rigging of a steamer lying in the river at a distance of about 100 yards was threatened, and that a consignment of jute which was lying on the quay, exactly opposite the burning building, was ignited. Men had to be detached to preserve the steamer and the cargo of jute just at the time when there was the most pressing need to concentrate attention on Messrs. Tedcastle and M'Cormick's premises, and on the houses at each side of Messrs. Leask's. The damage, which, it is understood, is covered by insurance, is estimated at £10,000. As to how the fire originated nothing is known.

THE MANCHESTER GAS SUPPLY.—TIME, WAGES AND PLANT.—At a recent meeting of the Gas Committee of the Manchester Corporation several matters of great importance to the public were discussed. It was decided to advance the wages of the men employed by the committee by five per cent. It was also agreed to make concessions in the matter of work on Sundays, with the result that three shifts will be employed in place of two, and the men will not suffer any diminution of pay. Another subject which entered into the consideration of the committee was that of improving the quality and quantity of the gas supply. Owing to the accident at Rochdale Road works the department has been somewhat crippled and an increase of plant is to be made. This increase will mean that three-and-a-quarter million cubic feet will be produced, in addition to the quantity which the works are already able to turn out. The question of the appointment of general engineer was also discussed. Applications were considered, and will be dealt with upon another occasion.

SEARCH LIGHTS ON FIRE ENGINES.—The Fire Department of New York is always alive to the advantage of adopting any scientific device calculated to increase its efficiency, and the latest addition to its resources is perhaps worth noticing by similar bodies in this country. A small wagon carrying a portable electric searchlight plant will henceforth accompany every engine proceeding to a fire. There will be two lights with 18in. lenses on each vehicle. These lights are so arranged that they can be operated from the wagon platform, or carried about to the top of a neighbouring house so as to throw the beams in any corner or direction desired. Experiments carried out in New York prove these lights to be most useful at night, when, of course, the vast majority of fires occur. They enable the firemen to work up dark, narrow streets, handle their hose more rapidly there, and illumine corners not illumined by the fire and to which the firemen cannot obtain access.

The Patent List.

This list is compiled from Official sources in the Manchester Technical Laboratory, under the immediate supervision of George E. Davis and Alfred R. Davis, who report professionally upon the value of Chemical Patents.

APPLICATIONS FOR BRITISH LETTERS PATENT.

Improvements in Gasworks Governors. R. H. Smith. 24 608. December 11th.
Raising Liquids by Compressed Air. J. Lafon. 24,610. December 11th.
Accumulator Batteries and Porous Cells, Plates, or Diaphragms for the same or other Batteries. W. W. Pilkington and W. R Ormandy. 24,641. December 11th.
Artificial Scents in the form of Tablets. H. Mehrlander. 24,644. December 11th
Hot Coke Conveyors. M. Graham. 24,659. December 12th.
The Electro Deposition of Metals upon Iron and Steel. H. M. Punnett and H. M. Punnett, jun. 24,668. December 12th.
Process and Composition for Tanning Skins in the Manufacture of Leather. G. W. Adler. 24,680. December 12th.
Improved Liquid Fuel Burner. G. W. White, C. Bradshaw, and O. T. Gregory. 24,684. December 12th.
Electric Smelting, Furnaces therefor. F. E. Hatch. 24,723. December 12th
Machines for Trimming Oilcakes. A. W. French. 24,729. December 12th.
Compounds for Destroying or Removing Old Paint or the like. T. Huson. 24,743. December 12th.
Manufacture of Sulphuric Anhydride. G. W. Johnson. 24,748. December 12th.
Treatment of Zinc-bearing Complex Ores. F. C. Blythe. 24,764. December 13th.
Manufacture of Black Colouring Matters. W. H. Claus, A. Ree, and L. Marchlewski. 24,765. December 13th.
Antiseptic Fabrics. C. Geiringer. 24,766. December 13th.
Manufacture of Superphosphates. J. Villars. 24,815. December 13th.
Bleaching of Paper Stuff. R. J. Yarnold. 24,827. December 13th
Cleansing Compounds. J. Templeman. 24,835. December 14th.
Continuous Rectification and Distilling Apparatuses. C. C. Fontaine. 24,846. December 14th.
Facilitating the Contact between Liquids and Gases. O. Guttmann. 24,847. December 14th.
Manufacture of Mangano-Calcium Carbide without the Use of Electric Current. W. P. Thompson. 24,876. December 14th.
Accumulator Plates. Z. Stanecki. 24,880. December 14th.
Production of Phenols from Tar. W. F. Sutherst. 24,905. December 15th.
Explosive Compounds. W. H. Akester and H. H. Price. 24,911. December 15th.
Improvements in Mechanical Stokers. W. R. Wood. 24,945. December 15th.
Preventing Incrustation in Boilers. J. Gottlob. 24 967. December 15th.
Improved Apparatus for the Production of Gas. A. J. Boult. 25,009. December 15th.
Improved Primary Electric Battery. W. P. Thompson. 25,001. December 15th.

ABSTRACTS OF LATEST COMPLETE SPECIFICATIONS.

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Improved Fireproof Compositions for Painting or Covering the surfaces of Wood or other Materials. H. V. Simpson and British Non-flammable Wood Co., Ltd., Army and Navy Mansions, 2, Victoria-street, Manchester. Eng. Pat. 345. January 6th, 1899.

Equal parts of powdered silicate of soda (or slag wool) and borax are mixed, and two parts of the mixture added to one part of a mixture of ammonium phosphate and salt in equal proportions. This preparation is ground in oil and added to zinc or lead paint. Hydrate of aluminium may be substituted for one quarter of the borax used. As the phosphate of ammonium tends to cause flocculence, it is omitted when a very smooth coat or surface is desired. In preparing fireproofing compositions the above ingredients are mixed with whiting or white-wash, using caseine glue, size, etc., as an agglutinant. A coat of boiled linseed oil is used as a protection against the weather. For coating purposes a *solution* of sodium silicate is used instead of the solid silicate.

Improvements in the Manufacture of Compositions having as a Basis Oxidised Oil, or Oxidised Oil and Fibrous Material. C. J. Grist, 20, Gracechurch-street, London. Eng. Pat. 25,286. November 30th, 1898.

Thoroughly dried and well carded fibre is immersed in cold, freshly-boiled linseed oil, and removed at once to a centrifugal, in which the excess of oil is removed. The fibre is then spread as loosely as possible on wire or gauze grids and dried with hot air. This cycle of operations is continued until the fibre is sufficiently impregnated, when the material is ground to a state of homogeneity by passing between rolls travelling at different speeds. French chalk or other colouring earth is then added and incorporated while the fibre is being passed through compressing rolls, care being taken to avoid undue heating during this process. After cooling completely 5 to 10 per cent. of flowers of sulphur is added, and the mass rolled into slabs, etc., between heavy calenders. Particulars are given for the preparation of sheets for lining acid tanks, brake blocks, paints, and electrical insulating materials. The finished product can be vulcanised

Improved Process for Obtaining Cyanogen Combinations from Coal Gases. Dr. H. Teichmann, Rheinau, Baden, Germany. Eng. Pat. 12,485. June 15th, 1899.

The coal gas containing ammonium cyanide or its components is passed through water in which sulphide of iron or zinc is suspended, when a ferro- or zinco-cyanide of ammonium is produced, which is readily soluble, and is unattacked by hydrosulphuric or carbonic acids. The subsequent treatment of the cyanide solution is simple, as calcium chloride can be used as a precipitant. With zinc compounds double cyanides can be obtained by the use of additional zinc salts, which can be transformed into potassium cyanide.

Improvements in or Relating to Means for Preventing the Creeping of Acids or other Deleterious Matter in Electrical Apparatus. J. T. Niblett and M. Sutherland, 61, Chandos-street, London. Eng. Pat. 2,129. January 31st, 1899.

To prevent the creeping of acids, etc., along electrical conductors, the acid is trapped in some suitable way. With secondary batteries, for instance, the conductor is passed through a U-tube containing oil. Other devices are described

Improved Composition to serve as a Substitute for Gutta-percha. H. Schneider, 7, Steinring, Strasburg, Alsace. Eng. Pat. 19,464. September 27th, 1899.

Forty-five per cent. of asphaltum is brought to boiling point, 40 per cent. resin added and heated until mixed. About 10 per cent. of spirit of turpentine is then added, and lastly 5 per cent. of linseed oil, and the whole well boiled. The resulting composition can be used as a gutta-percha substitute for coating cables, etc.

GOLD OUTPUT IN THE RAND.

ACCORDING to official returns from Pretoria, dated December 15th, the output from the gold mines in the Transvaal during the month of November amounted to 61,780 oz, made up as follows:—Robinson, 17,252 oz; Bonanza, 8,285 oz.; Rose Deep, 1,021 oz.; Ferreira Deep, 5,902 oz.; Ferreira, 8,982 oz; Worcester, 1,422 oz.; Village Main Reef, 10,467 oz.; Wemmer, 6,360 oz.; Johannesburg Pioneer, 2,089 oz. Langlaagte Deep has been allowed to crush the ore at grass. The other companies are allowed similar privileges.

SEQUEL TO THE CRUMPSALL POISONING CASE.—At the meeting of the Manchester Board of Guardians on Wednesday a letter was read from Mr. Alexander Currie, one of the dispensers at the Crumpsall Workhouse Hospital, who, it will be remembered, gave evidence at the inquest on two victims of the recent poisoning blunder at the hospital. Currie wrote that he had volunteered for service in South Africa and had been accepted. The letter added: "My resignation at this time must not be construed as an admission of any kind in connection with the late disaster in your infirmary, which cannot be deplored by anyone more deeply than by myself, no matter wherein lies the blame" Mr. J. Johnson: Is it our army or the Dutch he has joined? A Member: Aldershot isn't the Boer garrison. Mr. Johnson: I was hoping he might prescribe for Kruger. (Laughter.) It was reported that the workhouse master (Major Ballantine) had paid Currie his wages up to date, 17s. 1d., and Messrs. T. Boardman and J. Nolan both expressed their opinion that the Major ought not to have paid him anything, having regard to the fact that he left without giving notice.

COMMERCIAL EDUCATION AT UNIVERSITY COLLEGE, LONDON.—A commercial school at University College is to be established immediately by the London County Council. Mr. T. A. Organ, chairman of the London Technical Education Board, has, in a letter, supplied to us details of the scheme. The Board will pay £400. a year in consideration of the County Council having the right to nominate twenty free scholarships, add a grant of 50 per cent. to the stipend of the commercial schoolmaster, and provide an equipment of teaching appliances specially purchased on the Continent by Mr. Kahn, who was awarded a scholarship of £150. to visit the Continental higher commercial institutions. The scholarships will be offered for competition after the New Year. It is anticipated some will provide free education only, and that others, for poorer competitors, will have a maintenance allowance. The school will not prepare for the examination for the Lower Division of the Civil Service, but its object is to enable its students to take leading positions in connection with the commerce of the country. A great amount of attention will be given to modern languages, while English literature will not be neglected.

THE PETROLEUM FIELDS OF GASPE.

INDUSTRIAL AND HISTORICAL REVIEW.

IN the course of the first ordinary annual meeting of the Irish Proprietary Oil Fields of Gaspé (Canada), Ltd., the Chairman of the Company (Mr. John A. Walker, J.P.), gave an instructive summary of the history and future prospects of this district. He said:—The district of Gaspé is a district south of the St. Lawrence, and in the province of Quebec. That district had been surveyed a number of years ago by the engineers and the geologist employed by the Canadian Government. They pronounced a very strong opinion upon the character of Gaspé, stating it was a large oil-bearing district, and their reports—for there were a series of reports—coming under the notice of a number of gentlemen in Canada, induced them to arrange with the Canadian Government for the purchase of this property. They purchased about 50 square miles in the district of Gaspé, including in their purchase the whole of the anti-clinal axis—that is to say, the district in which the oil was most likely to be found. These gentlemen formed themselves into a company called

THE PETROLEUM OIL TRUST.

We call it the parent company. This Petroleum Oil Trust at once set to work in making roads—because there is no railway in the district—for the purpose of conveying the oil from the wells they intended to sink to the port of Gaspé. They spent a great deal of money in laying out roads and in sinking the wells, and they were extremely fortunate in almost every well they sank in obtaining a very considerable supply of oil; indeed, one of the wells that they sank, which they numbered 27, was a well in which the outflow of oil was so great that before they were able to shut it down they lost 1,000 barrels—a very serious loss indeed. They, however, succeeded in shutting it down, and now the oil is simply waiting to be conveyed to the port of Gaspé.

TRANSPORT DIFFICULTIES.

Now, a difficulty, the difficulty of conveying the oil from their wells to Gaspé, arose from the circumstance that the cost of conveying it a distance of 20 miles (that is the distance between the well springs and the port of Gaspé) would be a very serious expense. They would have had to convey it in barrels and by wagons, and the result of that conveyance would be that it would take away all profits. Therefore, they saw the wisdom of not sinking further until means could be found of conveying the oil to Gaspé at a less expensive rate. Then another company was formed as the child of the Petroleum Oil Trust. It was a Belgian company. It was also successful in sinking wells, and of finding oil. Then we, your company, came in, and we sank wells. We were rather less enterprising, perhaps, than some of the other companies, but we wanted to be quite sure, before we spent our money, that the money which we were spending would be productive. We therefore only sank three wells, and we are happy to say that each of them is oil-producing. When we had sank our wells we were, of course, met with the same difficulty that the Petroleum Trust and the Belgian company had experienced, namely, the difficulty of conveyance; but we had the assurance of the Petroleum Oil Trust that as soon as we were prepared to supply oil they would make arrangements for the conveyance of the oil to the coast. Owing to the energy which was put forward by some friends in connection with the trust, and connected with ourselves, a large company was formed in Manchester, one of the principal shareholders of which, I am glad to say, is here. Owing to the energy of these gentlemen, a company was formed in Manchester, the sole object of which was to

LAY DOWN PIPE LINES

for the purpose of conveying our oil, and the oil of the other companies established in Gaspé, free of expense, to the port of Gaspé. The directorate of the Manchester Company was composed of the wealthiest and the most distinguished gentlemen in connection with the trade of that city, and among them the moving spirit was a gentleman of the name of Mr. Bagnall, one of the largest importers of American oil in the North of England. I suppose Mr. Bagnall found that the supply of oil by the Standard Company was being gradually diminished, the result of which was that the price of oil was increasing by leaps and bounds; indeed, it has gone up nearly 40 per cent.

It was therefore absolutely necessary that oil should be had from other sources, and when Mr. Bagnall and his friends heard of the rich district of Gaspé they set to work to get a number of friends together and form themselves into a company with a capital of £300,000. Well, they undertook to lay down the pipe-lines. They said they would have the pipe-lines laid by the end of last month, and I am thankful and happy to say that they have succeeded in laying them down from the harbour of Gaspé to our wells, a distance, as I have said, of nearly 20 miles.

REFINERIES AT GASPE.

They will thus be prepared to take our oil to the refineries which they are erecting at the port of Gaspé. Now, I must tell you that that is a very great saving to us. It has not cost us a penny, and as the Manchester company want the oil they have entered into an agreement with us, and have given us a substantial sum in their shares to induce us to enter into that agreement. They entered into an agreement with us to purchase the whole of our oil, no matter how many wells we have—the whole of our crude oil at the ordinary market price, whatever that price may be. Therefore I can tell you that we occupy a very important position—a very satisfactory position—so far as that is concerned. We have been so successful with our three wells there that we are ready now to send the oil forward; but, of course, until the refinery is erected at Gaspé Harbour it would not be wise for us to do so; therefore we have to wait until the refinery machinery, which is on its way, is erected.

THE MANCHESTER COMPANY

expect that in a few months' time the refinery will be ready, and then all the oil which we have banked up, and which we are at present putting into barrels and tanks, will be sent forward. We shall then begin at once to realise money from the production of our wells. The prospects being so good, the directors felt themselves justified in giving instructions to their manager to set to work and sink three more wells. These instructions have gone out and we expect in the course of a few months three or more wells will be struck in the oil pool which has been discovered in the neighbourhood of our wells. They say these wells will be placed upon the oil pool; so that I hope before long we shall be able to make a very satisfactory report to you of our products. I may say we have room on our property—for it is amongst the best in Gaspé—for 200 wells. We have not the capital to sink 200 wells, but I hope in the course of time, when people see the value of the property, they will be disposed to take our shares, and thus furnish us with ample funds, and enable us to still further develop the property. We believe that the wells we have, along with the wells we are going to sink, will pay you a substantial dividend; for, of course, the more wells we have the better our dividends will be. Now, as to

THE CHARACTER OF THE OIL

itself. I wish our secretary had brought here some of the samples that we have; but if any of the shareholders would like to go to our office in Bishopsgate-street, and look at the quality of the oil, they will be very much pleased with it. We have had it tested by scientists of the first order, and we are justified in stating that there is no such oil in the world for clearness, for freedom from smell, and we believe that the moment our oil comes into the market it will command the trade of the country. As I told you, we have here the largest shareholder in the Manchester Company—that is the company formed to lay down the pipe-lines to our wells—Mr. Sydney Lee, and if you are willing to hear him, I will ask him to say a few words.

Mr. Sydney Lee: I have had a great deal to do with the Canada Petroleum Company, a company formed in Manchester in May of this year for the purpose of laying pipe-lines and erecting refineries at Gaspé. In connection with that company Mr. Walker has only mentioned one gentleman's name—Mr. Bagnall's; but I may say the directors of that company are some of the most important men in the City of Manchester. Among them is Sir William Bailey, one of the directors of the Trafford Park Estate, and of the Manchester Ship Canal, and who is chairman of the latter company. The object of his joining the board, to a great extent, was the fact that he thought the import of oil from Gaspé would largely increase the traffic over the Manchester Ship Canal. Before Sir William decided to join the board the Canal board had independent reports made upon the property, which were, I may say, of the most satisfactory character. Before he and others sanctioned their names being put on the prospectus and the issue of the company's capital, of which close upon £100,000. was underwritten before we came out, all this information was obtained. That underwriting, I think, will go, to some extent, to confirm the history and reports you have had upon the property, both in the prospectus of your company, and the reports which have been issued from time to time. No sooner was the Canada Company formed than Mr. Walter G. Bagnall

VISITED THE PROPERTY.

(*C.T.J.* 637, p. 83, and 645, p. 210). Of course, at that time there was a great deal to be done in organising the labour and in making contracts with the refining company, and ordering the petroleum pipe-lines. I may say we have had some difficulty in obtaining the pipe-lines on account of the very great increase in the price of iron, and, consequently, the pipe-lines cost us considerably more than we had anticipated. However, we got them there in good time—indeed, by the end of July. Another director (Captain J. Sparks Dewhurst, of a well-known Manchester family) has been two months on the property, and since his return on Monday last he has informed me that the pipe-lines are all satisfactorily laid, that the whole of the work is done, and

that the greater portion of the refinery plant is on its way—that is to say, that probably it is not more than 60 miles from Gaspé at the present time. With regard to the Canada Company, they, like the Irish Proprietary Company, have procured certain rights from the parent company to sink wells, and I may tell you they are now sinking 16 wells upon the property, four of which are in the immediate neighbourhood of this company's wells, in fact, within 10 acres. All the wells surround what is known as well 27, the big well which proves the existence of oil in bulk. I may tell you that the whole of the first four wells have struck oil, Nos. 34, 35, 36, and 37. They are all splendid oil-producing wells; in fact, Captain Dewhurst told me that with regard to well No. 36 there were 70 barrels lost when the oil was struck, therefore, that will show you that in the immediate vicinity of this company's property there is oil in bulk. I think we have pretty well located the oil-bearing line from the experience gained in connection with the other companies. All the wells are sunk in a wheel or circle around well No. 27. The chairman did not mention the fact that the Irish Proprietary holds 750 acres of this particular block, No. 40, which is

DIRECTLY ON THE OIL-BEARING LINE.

Not only as shown in the original reports of Sir William Logan on the maps of 1844, but also Sir C. Stockliff, late chief engineer of the Nobel Company, located this particular portion of Block No. 40, as being the most probable portion of the land where the oil would be struck. It was on Sir C. Stockliff's report and recommendation that this particular portion of Block 40 was selected by the directors of your company at the time the company was formed, and that selection will, I think, prove to be a very satisfactory and very lucky one. There is a great deal of luck in striking oil, but in this case I think we have been very fortunate in getting a particular portion of the block, which has now been proved to be the best part as yet discovered of the whole of this oil district.

REFINERIES READY BY JUNE.

With regard to the Canada Company, I do not suppose that we shall be able to get the refieries erected until the snow is off the ground. That probably will be in the early part of April, and then the refineries will take six or eight weeks to erect. I may say the directors of the Canada Company do not want to lose any time in getting the oil down to the refinery. The refinery is situated some 12 miles from Block 40, and £15,000. of tanks have been ordered to be constructed close to the refinery; of course, not too close on account of explosions, but close to the refinery; and it is proposed to take the output of the oils of all the companies, and store them in these tanks as soon as they are erected, so that the refining may proceed with great rapidity. The refinery is estimated

TO TREAT 500 BARRELS PER DAY,

so I do not think we shall find any block in our way on account of the Canada Company not being able to take the output of this company in time. In the contract of this company with the Canada Company, there is a very important clause—namely, that they must take from us, as tendered to them, the whole of the output, and we have the right in our contract that if by any manner of means they should not take the whole output, we have the right to send it down over the pipe-lines and refine it ourselves. Therefore, you see your directors have amply protected the shareholders, and I think the working arrangement between you and the Canada Company will be for the benefit of all concerned.

FATAL EXPLOSION AT DOUGLAS GAS WORKS.

ON Friday last a terrific explosion at the Douglas gasworks threw the town into consternation, and the feeling was intensified when it was seen that the works were in flames. Five minutes afterwards two more explosions occurred, and there seemed a danger that the whole works would be enveloped. The fire, however, was confined to the condenser, purifier, and scrubbing-houses, which were destroyed. The gas-holders were at a safe distance.

It appears that James Beard and John Coole, workmen in the employ of Messrs. Knox and Son, engineers, assisted by James Moody, one of the Company's men, were engaged in fixing a new pump to a tar tank, and it transpired at the inquest used a naked light. The workmen showed great bravery in going to the blazing house immediately after the third explosion. The tar tanks were arched over with brickwork and iron girders, and these structures have been completely demolished. All the missing men were married and leave families.

The explosion completely wrecked the large pipes leading from the retorts to the purifiers, and the escaping gas made a tremendous blaze until the retorts were drawn. The making of gas was stopped, but a sufficient supply for the town for the night was in the holders, and repairs were carried out all night, so that no serious hitch occurred in the town lighting.

THE COAL FAMINE IN SHEFFIELD.

THE latest development of the coal famine is the announcement that quite a number of Sheffield iron and steel firms have sent in to the Midland Railway Company heavy claims for damages to compensate them for the losses incurred by the non-delivery of coal and coke. The serious nature of the situation from a commercial point of view may be gauged from the fact that recently a part of the works of John Brown and Company, Brightside, was idle for want of fuel, their blast furnaces at Grimesthorpe having been standing sometime for want of ores, and their collieries at Parkgate were also standing because the yards are choked with loaded waggons of coal which the railway companies are unable to shift. It will thus be seen that self-contained firms like Brown's and Cammell's, who owns collieries a few miles away, are suffering from the famine as severely as those who have to buy their coal. Cases are reported where house coal at 15s. a ton is being used in boiler furnaces because no slack is available.

COMMERCIAL CRISES.

PROFESSOR FLUX in his course of lectures on "Commercial Crises," being given at the Owens College, Manchester, described the immediate causes of some of the great crises of the century, a few of their leading incidents, and other interesting matters connected with them. Beginning with the year 1824 and the succeeding crisis of 1825, he pointed out that a great variety of enterprises were launched in that year, prominent amongst which were South African mining developments. The list also included a number of insurance companies, navigation companies, and land and investment companies. Then a number of loans to European States were floated, and the speculative craze lasted throughout 1824 and well into 1825. Professor Flux next dealt with the produce markets, which until the close of 1824 stood apart from the general excitement of speculation. Anticipated shortness in the supply of some of the leading articles, however, led to advances in price towards the close of the year, and the case in the money market stimulated the spirit of speculation based on such anticipation. Cotton led the way. The importance of the cotton industry to the country was shown by the fact that the declared value of exports of goods from this country included about £85. worth of cotton yarns and goods to every £100. worth of goods at that time. Speculation rapidly carried the prices of this and other goods far beyond what the real scarcity warranted, and under the influence of the rise of prices there were tempted into the market a number of outsiders with merely speculative purposes who had no expert knowledge of the markets in which they dealt. The highest point was reached by most articles before the end of April, 1825; then the end of the inflation came, and in May and June there followed a rapid decline. The losses fell in part on the non-trading classes, but the banking and commercial world did not escape having to bear a great part of the burden. A source of trouble, often before and since felt, soon made itself manifest. Banks which would have been able to meet all their engagements, had they been given time, possessed an insufficient supply of liquid assets; others, of course, had gone further and exceeded their power of meeting their engagements, even if time had been available. But the inability to meet current demands was all that was necessary to produce breakdown. The lecturer described the effects of this crisis on manufacture and on employment, the applications to the Government for help in various ways—which were unavailing, and the establishment in 1826 of local boards in some of the chief manufacturing centres for the purpose of making advances on goods. The limit of the fund applicable for this purpose was £3,000,000., but only £400,000. was actually advanced, of which over £115,000. was in Manchester alone. He dealt with the crisis of 1835, the recrudescence of that crisis in the immediately succeeding years, and passed on to consider the crisis of 1847. Professor Flux had shown that speculation in railways had been one of the features leading up to the crisis of 1836-7. A renewed interest in the same development was felt about 1844, and it grew year by year until in 1846 a perfect mania for railway speculation occurred. In that one year 1,263 schemes were launched, which if realised would have involved an outlay of no less than £560,000,000. Parliament actually authorised in 1846 schemes which involved the raising of £130,000,000. of capital, or within one-fifth of as much as had been authorised in the preceding twenty years. The actual outlay on labour and materials for railways in the years 1844-6 and the first half of 1847 was £66,000,000. So large and rapid a conversion of floating into fixed capital could not fail to produce striking results in the market for loanable capital. Other causes leading to distress were at work, amongst them the potato famine in Ireland. The lecturer described the legislation undertaken to meet the then difficulties, including the repeal of the Corn Laws, and dealt with the speculation in grain which followed, and the subsequent failures in the grain trade, and the general discredit which came after. He then described the crisis of 1857.

GOOD IN EVERYTHING.

THE report of Mr Harry Thompson, C.M.G., Administrator, on the condition of St. Vincent Island in 1898 has been issued. As regards the hurricane of September 11th, 1898, Mr Thompson says that perhaps the most important direct result, and one which may have an even more important indirect effect on the future of the Colony, is the practical extinction of what remained of the sugar industry in St. Vincent. The crop of sugar in the ground was so seriously damaged that there was not sufficient for local consumption. The destruction of the sugar works cleared the way for a reformation in the antiquated processes hitherto in vogue, but there does not seem much probability that central factories on a large scale will be instituted In one or two cases proprietors are contemplating the introduction of somewhat improved machinery, but without one or more properly equipped central factories, Mr. Thompson believes that the production of sugar, except on a small scale for local consumption, must cease to be the staple industry of the colony. The industry has been in a moribund condition for many years, but, had it not been for the hurricane, it might have dragged on for a few more years and so made the transition from the old to the new order of things less abrupt than it must now be. The ultimate prosperity of the colony, in the absence of central sugar factories, must be looked for in the establishment of small holders supplemented by working estates. The difficulty in establishing small holders is that large areas of land are unsuited for the production of a variety of products, but there is hardly an estate in which there is not suitable land for this purpose of which no use is made for estate purposes. If proprietors would dispose of these to small holders, they would, in time, have around them a prosperous and contented body of men, whose labour would always be available for the estate, but who would not be absolutely dependent on it.

THE AMERICAN COPPER RING.

THERE has been a pretty hard time this last week in Boston for copper mining shares, and they have seen the lowest figures reached within a year. The actual shrinkage in market values has been over rather than under 200,000,000 dollars since last spring. The trouble really began eight months ago, when the Standard Oil people were supposed to be attempting to get control of the Boston and Montana Company. At that time a great many depressing influences were brought to bear to induce the large holders to throw over their stocks, and one particular influence which had more bearing than any of the others was the appointment of a receiver for the property, knowledge of which caused a break in the stock to 226, at which figure a leading official of the company and some associates took all the stock offered. The Standard Oil people failed to get control of the company at this time, because their buying orders were put in at 225 and under. One of the men who supported the stock at 226 was a Boston bank director and a copper mining official, while the other was a Chicago business man. The bulk of the money used to carry this stock was borrowed from a local bank, in which the former was interested, and which bank had incidentally outstanding loans to certain mercantile houses whose credit was not above reproach. It is the result of these operations and others involving the financing of the several mining propositions brought out by what is locally known as the United States Oil crowd which caused the embarrassment of the Globe National Bank to such an extent that the Clearing-house Association of Boston was obliged to come to its rescue with an issue of $3,500,000 in Clearing-house certificates. The Clearing-house Association took this action to protect its members, and upon the assurance that the local speculative situation in copper stocks was to be improved, so that the asset back of the certificates would not be impaired. This movement is, it is said, to be brought about by Standard Oil money, for which the copper mining official before mentioned and his associate, the Chicago business man, are to turn over some 13,000 shares of Boston and Montana stock, practically giving control of this company to the Standard Oil interests in the Amalgamated Copper Company. It took many hours of time and much diplomacy to bring these measures of relief into shape. The stumbling block was, and is still, the United States Mining Company, the largest part of whose share capital has already been bought in the open market by the inside interests, and in which there is an outstanding short interest of 12,000 to 15,000 shares. The insiders need money to carry this stock on margins, which money was not obtainable in Boston. The Standard Oil people, it is believed, do not care to see a bad break in this stock, because it would seriously affect the prices of the other copper stocks in which they are especially interested. A meeting of the Boston brokers, which was generally attended, has been held, and an attempt made to pool issues and support the stock *in the* Boston market until the crisis is passed.—*Financial News.*

THE NEW SMELTING WORKS ON THE SHIP CANAL.

THE first annual general meeting of the shareholders of the Smelting Corporation, Limited, whose works are situated at Ellesmere Port, was held in London last week, the Right Hon. William Lidderdale, chairman of the company, presiding. See also this *Journal*, No. 657, p. 414. In moving the adoption of the report the chairman said the first unit or section of plant – say one-third of the whole—calculated to treat about 700 tons of ore per week, was nearly finished. The motive power and the zinc portion of the second were also finished. A little progress had also been made with the third section, because some of the requirements provided for were common to all three sections—e.g., the wharf, railway communication, water supply, etc. Having explained the two operations into which the sulphide process was divided, the chairman said that after careful trials the directors had adopted a new mechanical ore calciner (Godfrey's patent) which promised to reduce materially the cost of this part of their process. Their works, though only partially complete, had been visited by gentlemen whose opinion was worth having, and who were unanimous to acknowledge the exceptional quality and the excellence of the arrangements. As regarded their process he had only to say that the smelting part, though not yet quite reached at their works, had been successfully tested elsewhere on a scale which absolutely precluded any chance of its failing at Ellesmere Port with their very superior arrangements, and that the zinc portion, as before stated, had already more than fulfilled their expectations. They were now on the point of making demonstration of the value of their patent, and he had no doubt it would attract great attention and arouse corresponding interest abroad, calculated as it was to revolutionise an important section of the smelting trade.

A "GLOVER" TOWER ON FIRE.

LAST week that portion of the Grimsthorpe Gasworks, Sheffield, in which sulphate of ammonia and sulphuric acid is manufactured, was entirely destroyed by fire. The flames broke out in the "Glover" tower, and spread with alarming rapidity to the remaining portion of the premises The flames were discovered by the boiler firer, a man named Claxton, who noticed that the top of the "Glover" tower was alight. He lost no time in communicating with the night watchman, who sent a telephonic message to the Fire Station. In the meantime the wooden casement of the tower was burning furiously, and the flames spread to the woodwork surrounding the acid chamber on that side of the yard. Every effort was made to check the flames, but they had gained such a firm hold that the attempts were useless.

The firemen worked under the greatest difficulties, especially owing to the escape of nitrous fumes from the acid chambers. The acid released from the tanks fell into the yard and passages below, and rendered the lot of the firemen not only unpleasant but dangerous ; and the leaden chambers, melting, fell in molten streams to the ground. The flames had not only spread to the first chamber, but to the others on the opposite side of the yard, and at the end ; and the still-house—connected by an overhead gangway with the store shed—was blazing furiously. The burning portion covered an acre and a half, and at times it required almost the full efforts of the brigade at this particular spot to cope with the flames, the fumes from the acid tanks and burning chemicals in the yard and passages giving off most disagreeable odours. Gradually, however, the efforts of the men began to tell, and after three hours' hard work Superintendent Frost was able to withdraw the larger portion of the brigade.

An inspection after the flames had been subdued showed that the entire place had been gutted. All the four chambers were practically destroyed –one completely—and the larger portion of the acid therein was rendered useless through escape, and through the admission of water into the chambers. The gangway connecting the still-house with the other part of the works was burnt through, and had fallen to the ground, and the still-house was a ruin. The roof had fallen in, but, fortunately, the plant, although considerably damaged, was not injured beyond repair. The tower where the fire originated was destroyed, and 50 tons of the huge pile of finished sulphate of ammonia in the covered yard were spoiled. The roof of the yard was also demolished The total damage is expected to exceed £5,000. Most of the firemen who were present received injuries in consequence of the escape of acid. The most serious case, however, is that of Fireman Hoole, who was near a tank when the acid rushed out. The fluid fell on his face and neck. He is progressing favourably.

CALCIUM CARBIDE IN SWEDEN.—The manufacture of calcium carbide in Sweden is on the increase. The Trollhottar factory has been enlarged, and the new works at Alby has started to manufacture, thus bringing the annual output up to about 6,000 tons

Reports of Companies.

LAGUNAS NITRATE CO., LTD.

The directors report that in the ordinary course the shareholders would have been asked about this time to attend the annual general meeting in order to consider a report by the directors and the accounts of the company. They would appreciate, however, that the issue raised in the pending appeal from the judgment in the action against the Lagunas Syndicate was one which, while undecided, rendered it impossible usefully to frame any balance-sheet, or in fact to discuss the position of the company. In any event it would be necessary for the directors to meet the shareholders so soon as the judgment of the House of Lords had been pronounced, and under the circumstances the directors had decided to postpone in the meantime the ordinary general meeting.

RUBBER ESTATES OF PARA LTD.

The directors, in their report to June 30 last, state that the estates were not available to the company for working and development purposes till March of this year. The greater part of the remittances sent to Para to June 30 went to provide stores and genral equipment for the present season's operations. In addition to the proceeds of rubber to June 30, the company received the sum of Rs 39,620 in sterling equal to £1,156, as compensation for being deprived of the benefits of the 1898 crop. Regarding the progress of operations on the company's property, the board at the commencement of the season made arrangements, apart from the European staff, native storekeepers, and estate labourers, to place 650 rubber collectors on the estates, to operate on the direct system; but through the nonfulfilment of certain labour contracts and other causes, the actual number of collectors engaged was reduced to 450. Through sickness, however, which has during the season been abnormally prevalent throughout the islands on the Amazon, as well as in consequence of death and desertion, the collectors now on the estates working on the direct system only number 328. These men are working 588 roads, besides which 135 roads are being worked by tenants. The total output of rubber from the estates to November 6 was 47 tons. The directors are disappointed at the prospective results of the season's output of rubber, but are confident from present indications that the ensuing year will yield far more encouraging results.

THE PEGAMOID PATENTS.

The creditors and shareholders of the Publishing, Advertising and Trading Syndicate met last week at the Board of Trade Offices, Carey-street, Lincoln's-inn-fields, to select a liquidator under the winding-up order recently made against the company. So far as the Official Receiver was aware, the only asset taken over was an agreement with Mr. Oliver relating to the acquisition of letters patent and patent rights connected with Annison's patent for the manufacture of pegamoid, and, in fact, the acquisition and exploiting of those patent rights seemed to have been the only business in which the company had been engaged Under an agreement, dated December, 1893, Mr. Oliver was to receive 25 per cent. of any net profit, and a sum of £15,312. had been credited to him in respect thereof in the books of the company. Mr. Joseph J. Byers, one of the first directors, held nearly one-half of the capital in the new company, and apparently he really controlled its affairs.

SALE OF THE PATENTS.

In July, 1896, the company effected a sale of the English pegamoid patents to Pegamoid, Limited, and made a cash profit of £66,391. in addition to receiving a considerable number of shares in that company. That £66,391. profit was divided as follows, viz., a dividend of £500. per share was paid on the 20 founders' shares, taking £10,000.; a cumulative dividend of 20 per cent. from October, 1892, to December, 1896, was paid on the 2s. in the £ that had been called up on the ordinary shares, that dividend requiring £831. 15s. 3d.; £14,854. went to Mr. Byers under an agreement; £6,000. six per cent. debenture bonds were paid off, a further £4,456 went in additional directors' fees, and a balance of £30,106. was carried forward. Early in 1897 the company, for the purpose of disposing of its patent rights in America and elsewhere, sent Mr. Byers to America, and in due time an offer of £70,000 was received for the company's rights in the United States, Canada, Mexico, and North America. That offer was accepted, but all that had been received from Mr Byers was £5,600. against which he had drawn £13,477. on account of prospective profits. There was consequently now due from Mr. Byers a balance of £7,771. in addition to the £70,000. purchase money. The company had been enabled to stop the transfer of the Canadian patent, and that was accordingly still an asset. The directors made enquiries as to the possibility of obtaining further payments from Mr. Byers, but they came to the conclusion that nothing could be done, as Mr. Byers' present address was unknown. For the purpose of raising further capital and to meet the expenses of bringing out other Pegamoids, two of the directors in December, 1897, advanced to the company £27,062., secured by mortgage of all the shares to be received by this company from the Russian, Belgian, French and German syndicates. Then, in the following April, the 18s. in the £. uncalled capital on the ordinary shares was called up, and, with the exception of £3,600. due from Mr. Byers, was duly received. In August, 1898, a further advance of £10,000. was obtained from the two directors previously referred to. A receiver was appointed in the following October, on behalf of the mortgagees, in respect of the last loan of £10,000., and that official had expressed the opinion that there were practically no assets whatever. The failure of the company was attributed by the directors to the default made by Mr. Byers, and the consequent deprivation of the company's necessary capital

THE INQUIRY COMMITTEE

will have to give special attention to the question of why Mr. Oliver had never received his fourth share of the profit on the sale of the English pegamoid patents.—Mr. Alexander Gray (a director) stated that they at one time were of opinion that Mr. Oliver had a good claim against the company; but they had since learned of an agreement being entered into between Mr. Byers and Mr. Oliver which would probably make the latter a party with the former gentleman, and liable for the loss sustained by the company through Mr. Byers. That, however, would be a matter for the attention of the liquidator.—A resolution was passed for Mr. Hugh Limebeer (the receiver for the mortgagees) to act as liquidator, assisted by the following committee of inspection, viz, Messrs. Hais, Woolf, and De Ritter, and the proceedings then terminated.

YORKSHIRE WOOLCOMBERS' ASSOCIATION.

A general meeting of the shareholders of the Yorkshire Woolcombers' Association has been held in Bradford. Mr. Frederick Illingworth, chairman of the Executive Board, presided. The Chairman said that the meeting had been called in order to comply with the Acts governing the administration of joint-stock companies. They would recollect when the prospectus was issued that the share capital was stated at £1,500,000., and, as was then indicated, power was reserved to increase the capital by the creation of additional preferred and deferred ordinary shares before any allotment was made. This power was exercised by the original shareholders, consisting of the seven signatories to the memorandum and articles of association, and the share capital of the Company now stood at £2,000,000., consisting of £1,100,000- preferred ordinary shares and 900,000 deferred ordinary shares. The original share capital was therefore increased by half a million. The amount of the preferred ordinary shares issued was £650,000, and the deferred ordinary shares £531,000, leaving in reserve £450,000. preferred ordinary shares, and £368,200. deferred ordinary shares. He might say that it was not the intention of the directors to make any further issue just at present, even though they had it in contemplation; the present tightness of money would make it extremely inadvisable to do so. As regarded the allotment, it might interest them to know that the applications for the £433,334., preferred ordinary shares which were issued to the public amounted to £4,162,121. They were thus nearly ten times over applied for. The debenture stock allotted to the public was half a million and the amount applied for £1,320,236., being thus more than two and a half times over applied for. The preferred and ordinary shareholders numbered 3,564, and the debenture stockholders 1,891. The company had been such a short time in existence that it scarcely fell in his province to say much at the present time regarding the working of the association up to now. He might mention that the executive board of directors were at present busy making arrangements which they thought would eventually effect considerable economies. Now that all the different branches were really members of one large family, they were able to give one another the benefit of each other's experience. At one place they found a certain advantageous process which they knew was not in use at some of the other branches, and they were so far forming their plans that the benefit of such processes would become common to all. They were also concentrating the buying, and, broadly speaking, were doing their very best to reap the harvest which the maintenance of fair prices, the removal of undue competition, and the centralisation of working ought to produce for them. Resolutions were afterwards passed amending the memorandums of association to secure an early quotation on the Stock Exchange.

DIVIDENDS.

CANADA COPPER COMPANY.—The directors announce a dividend of 18s per share for the half-year ending January 10 next.

LAUTARO NITRATE CO.—A dividend of 1s. 6d per share has been declared, payable on January 1.

Trade Notes.

Coal Products and the War.—The following notice has been issued by the Foreign Office:—"Information has been received that agents from the Boer Government are endeavouring to purchase some of the residual products of gasworks. All manufacturers are warned to be cautious as to accepting such offers to purchase coming from any new or unknown quarter, as it may amount to the offence of trading with the enemy."

A Boer Opinion of Lyddite.—The newspaper *Volksstem* publishes a letter addressed to the Boer Minister of Mines by Gustavus Preller, one of the commandants in the field, upon the subject of the destructive powers of lyddite. According to this chronicler the Boers at first believed that the smoke given off by bursting lyddite shells was poisonous to those who inhaled it. Describing the bursting of a lyddite shell, Preller says: "We were standing close to Long Tom when one of the British big guns fired at us, and the shell fell close to us with a tremendous noise. It sank 4 ft. into the solid ground, making a hole big enough to bury one horse and one man standing. Everyone expected that he would be the first victim. Well, the fatal smoke cloud arose, and fragments of shell snarled around us in all directions. We stood and looked with bated breath. The smoke cleared away, and we found that not one of us had been hurt. So there was another bubble burst. The lyddite smoke was proved to be non-fatal, and its general effect altogether less terrifying than we had been led to believe." [It is strange they should be so anxious to acquire the means of producing picric acid (see "Lyddite," this *Journal*, No. 656, p. 394), as is indicated by the above warning, if lyddite is so harmless and "non-fatal."—*Ed., C. T. J.*]

More Coke Ovens.—Eighty new ovens, which will permit of bringing up the total annual out-turn to 400,000 tons of coke, are being built at the new Dannenbaum Colliery, Westphalia, now owned by the Differdange Smelting Company, in the Grand Duchy of Luxemburg. The above quantity, however, is greatly in excess of that required by the blast furnaces in question, so that there will be a balance available for sale.

Society of Chemical Industry: *London Section*.—The next meeting of the section will be held at the Chemical Society's Rooms, Burlington House, Piccadilly, on Monday, January 8th, 1900, at 8 p.m., when the following papers will be read and discussed:—"Colour Photography," by Mr. J. W. Hinchley, Wh. Sc., A.R.S.M.; "Cinchona," by Mr. J. M. Vargas Vergara, F.C.S.; "Microscopic character of Vicunna, Camel-hair, and Alpaca," by Mr. R. M. Prideaux.

Petroleum in China.—Petroleum in the province of Shantung is collected in a large tank near the mouth of the well, and is raised together with the salt water. It is allowed to settle for a short time when the lighter oil soon rises to the top. A cock is then opened, which allows the salt water to flow off through a sieve, after which the cock is closed, and what remains is petroleum. This method, although primitive, is not costly; but the Chinese are unacquainted with the process for purifying the oil and rendering it marketable. The petroleum has hitherto only been sold at the salt works themselves for making torches, and the Government has taken no measures for regulating the working.

Another Russian Naphtha Co.—Just before Christmas the shares of the A. J. Mantaschew & Co. Naphtha Company were introduced on the St. Petersburg Stock Exchange. The company, which has taken over one of the oldest firms in the naphtha trade, was only founded this year, its capital amounting to 22,000,000 roubles. The shares, the nominal amount of which is 250 roubles, were introduced on our Exchange with a premium of 70 roubles, the price having risen since to 390. While still a private firm the Mataschew venture was known to yield good profits to its owners, which, it is supposed, will not deteriorate now that it belongs to a limited liability company. On December 31 (old style) the company ends its operations of the first half-year, for which lapse of time a dividend of from 15½ to 17½ roubles per share will be distributed.

Market Reports.

TAR AND AMMONIA PRODUCTS.

Benzols are slow both as regards the attitude of sellers and buyers, with 90's at 8d. to 8¼d., and 50/90's 10d. to 10¼d. Carbolic acids are without change, the market being quietly steady. Solvent naphtha is firm at 1s. 4d. Pitch is brisker at 34s. f.o.b. East Coast, and 31s. West.

Sulphate of ammonia has fallen considerably in price. Forward values are quite nominal. In prompt Beckton quotation is withdrawn. London outside makes stand at £11. to £11. 1s. 3d.; Hull, £11.; and Leith, £10. 17s. 6d. to £11. Nitrate of soda firm.

MISCELLANEOUS CHEMICAL MARKET.

Business quiet owing to the holidays. Prices all round are steady and well maintained. In the alkali trade, makers are very busy. Bleaching powder remains at £6., f.o.r., and is quoted 5s. per ton less for 1900 delivery. Caustic soda scarce for early delivery, at former rates. Pure alkali is in much the same position. Saltcake is quoted 27s. 6d., f.o.r., but it is doubtful whether this figure has yet been realised. Chlorates of potash and soda unchanged. Sulphate of copper is only in moderate demand, and there is no quotable change in price. White powdered arsenic is meeting with more inquiry, and prices are rather inclined to advance; £19. 10s., at Garston, is to-day's value. Tin crystals weaker, due to the decline in the metal; about 9½d. is to-day's quotation. Acetates all round are firm. Brown lime still remains at £6. 5s., and grey, £9. 10s. Acetate of soda, £14. 10s. Acetic acids scarce for prompt delivery; prices: 25%, £6., and 40%, £9. 10s. Foreign white sugar of lead advanced 10s. per ton. Tartaric acid quiet at 11d. per lb. Tannic acids strong, with a rising tendency. Yellow prussiate of potash is worth 7½d. per lb., but business in the article is quiet. Muriate of ammonia is weaker; £23. 10s. is still quoted generally, but this price is only nominal. Carbonate without change. Carbolic acids remain strong, but without alteration in prices. Bichromates practically remain unobtainable for spot delivery, and it is difficult at present to prophesy as to the future of the article. Potash, caustic and carbonate, is still in very short supply, and high prices are being paid. The demand for fine chemicals is above the average.

REPORT ON MANURE MATERIAL.

The market is altogether of a holiday character, and there is nothing of importance to comment upon.

Quotations for mineral phosphates are unchanged, without any important business resulting.

The quotation for East Indian bone meal remains £4. 15s. per ton, ex-quay Liverpool, for fine quality, and this price would probably be accepted for January and February steamer shipment. For Karachi meal 5 per cent. sand basis, £4. 12s. 6d. per ton is the nearest value.

Nitrate of soda is steady at 8s. per cwt. for good, and 8s. 1½d. per cwt. for refined quality on spot.

THE METAL MARKETS.

LONDON, Wednesday.—Pig iron firm: Scotch warrants closed 64s., Middlesbrough, 63s. 7½d. cash; and hematite, 71s. 8d. Copper firm: Chili bars, G.O.B.'s and G.M.B.'s closed at £68. 10s. to £68. 15s. cash; and £68. 15s. to £69. three months. Tin steadier: Straits closed at £104. 5s. to £104 15s. cash; and £106 to £106. 10s. three months; Australian, £105 15s.; English ingots, £108. to £109. Lead quiet: Spanish, £16 5s. to £16. 7s. 6d.; English, £16. 15s. Silesian spelter, ordinary, £20. 2s. 6d. to £20. 5s. Nickel, 1s. 3½d. Antimony, £40.; Quicksilver: First hands, £9. 12s. 6d., second hands, £9 11s. 6d. *Copper Shares* steady: Cape, 5⅛ to 5¾; Copiapo, 3½ to 3¾; Libiola, 1½ to 1¾; Mason & Barry, 3⅞ to 4⅛; Rio Tinto, 42 to 42⅛; Tharsis, 8⅜ to 8⅝.

GLASGOW, Wednesday.—Market easier, and a moderate business. Scotch done at 64s. 4½d., 64s. 6d., and 64s. 2d. cash; also at 64s. 10¾d., 65s., 64s. 8d., and 64s. 8½d. month; buyers, 64s. 2d. cash; sellers, ½d. higher. Cleveland done at 64s. 7d. and 64s. 6d. month; buyers, 63s. 7⅛d. cash; sellers, 63s. 9d. Cumberland hematite done at 72s., 72s. 0½d, and 71s. 8½d. cash; also at 72s. 7d. and 72s. 4½d. month; buyers, 71s. 8d. cash; sellers, 71s. 9½d.

LIVERPOOL OIL AND COLOUR MARKET.

Wednesday.

OILS.—Palm oil is steady, and there has been a fairly good demand, sales including 100 tons Lagos at £24. 7s. 6d. to £24. 10s. Olive is steady and unchanged. Linseed quiet, but firm, at 22s. 6d. to 23s. 6d. for Liverpool makes in export casks. Cottonseed dull at 20s. 6d. to 21s. Castor oil is lifeless, and quotations mainly nominal, with good seconds Calcutta offering at 2¹⁵⁄₁₆d.; first pressure French, 2¾d. per lb. Tallow is firm in price, but there is not much doing. Resin is in poor request, but all grades remain unaltered in price. Spirits of turpentine steady at 38s. 6d. cwt. for spot parcels. Petroleum quiet, with American, 7⅝d. to 8⅞d., and 6⅞d. to 6¾d. per gallon for Russian refined.

ES.—The market for American Western linseed on the spot firm in tone, with a good demand experienced at fully previous ellers at the close asking £7. 2s. 6d. to £7. 7s. 6d. River ntinues nominally without alteration at £7 to £7. 10s. in the of any supplies in first hands on the spot, but near at hand of Bombay are steady at £7. 15s. to £8. per ton. Liverpool ave sold to a moderately fair extent for consumption at former es, and home crushers remain very steady at £8. 5s. to £9. per rding to brand. Good to choice brands of American decorti- ttonseed are still quoted at £6. to £6. 7s. 6d., according to and the market rules steady thereat, with a fair enquiry going erpool makes continue in moderate request at £6. 12s. 6d to for decorticated and at £4. 16s. 3d. to £5. 10s. per ton for ticated, both according to brand. Egyptian on the spot are eady, with a fair business doing at £4. 10s. to £4. 11s. 3d.

OURS.—Prices are steady, and practically without change. Oxfordshire—common £10., medium £12., best £15.; ire—common 40s., medium 50s., best 60s.; Welsh—best 90s.. 50s., and common 18s.; Devonshire, 40s. to 45s.; French, J.C., mber: 40s. to 45s. White lead: £16. Red lead unchanged. red: £6. to £10 Cobalt: Prepared oxide, 9s. 9d.; black 6s. Oxide of iron: Common £7.; medium £10., finest £20. de: £22. 10s. to £25.

ILL PAINT, OIL, AND COLOUR REPORT.

TUESDAY.

.—The market here at time of writing is lost in grease of character, previous to which it has been during the week of a liday character, notwithstanding which prices have remained d have every appearance of continuing so. The imports to writing have been for the year—Linseed, 636,832 qrs. against qrs.; rapeseed, 111,789 qrs. against 116,193 qrs; cottonseed, tons against 206,887 tons; oilcake, 22,895 tons against ons; olive oil, 4,536 tuns against 5,949 tuns; tar, 14,928 brls. 14,758 brls.. Refined cotton oil, 18s. 1½d, spot, naked, and market, the same also being the quotation to April. Crude ot, 16s. 10½d. naked; barrels, £1. 10s. and ordinary casks ton extra. The exports have been 770 tons for the week— Belgium, 10 Denmark, 4 Egypt, 554 France, 32 Germany, and, 1 Italy, 11 Russia. Linseed oil market closes quiet but 20s. 9d. per cwt, naked, spot; 20s. 7½d. Jan./April; boiled ned, £1. to £1. 10s. per ton extra. The exports for the week en 16 tons—Egypt 5 tons, Germany 2, Norway 9. Olive oil s very scarce and firm, being quoted from £37. per ton, g to origin. Olive oil soap continues so very high that it has practically unsaleable, except in small quantities. Oleines con- ry high, being quoted from £23. per ton for brown. Castor a trifle firmer. Turpentine from 37s. 9d. Cod oils £16. to r ton.

ES.—All feeding stuffs are a firm hardening market. cakes very firm, rather more orders; 95% pure, £8. 5s. to 6d. Oilcakes, £7. 5s. to £7. 7s. 6d.; Russian, £7. 17s. 6d. s. 6d. Americans none. Cotton cakes in better demand, with r market; best makes, £4. 15s to £4. 17s. 6d.; seconds, to £4. 12s. 6d.; decorticated, £6. 10s. to £6. 12s. 6d. Rape Black Sea, £4. 10s.

ITS.—Market unchanged, manufacturers being busy antici- ext year's business.

WEST OF SCOTLAND CHEMICALS.

GLASGOW, TUESDAY.

ate of ammonia has continued to weaken, though certainly at a urely rate, and no doubt the arrival of the holidays has some- do with present inertness. Makers' prompt quotation for f.o b. £11. 2s. 6d., or the turn of the scale under. Forward business ed meanwhile, buyers holding off for a further declension. Last s at £11. 15s., January to June delivery, but that was ten days more. Quotations given below for bichromate of potash and ate of soda are those of past-made contracts still unexhausted, open market has changed of late, makers having much oversold. who have not contracts, cannot get supplies except at greatly en- figures. The existing convention between the Scotch bichrome comes to a close in the spring of the new year, and, whether re- r not, the price is sure to be put up against new contracts. The market closes healthy for the holidays, with values rather on the Last week, sugar importation into Greenock was a blank.

prices current are:—Alum, in lump, £4. 5s. to £5. nett.; r; bicarbonate of soda, 5-cwt. casks, £6. 7s. 6d., and 1-cwt. £6. 15s. nett, Liverpool; bichromate of potash, 3¼d., less 6½% for Scotch and English deliveries (for export, 3d. nett, f.o.b. Glasgow); bichromate of soda, 2¼d., less 6½% for Scotch and English deliveries (for export, 2¼d. nett, f.o.b Glasgow); bleaching powder, 35/37°, £5. to £6. 10s., nett, Tyne; borax, English refined, £16., and boracic acid, £25. nett, Glasgow; caustic soda, white, 74°, £9. 10s.; 70/72°, £9; 60/62°, £8. 5s., and cream, 60/62° £9., all nett, Liverpool; chlorate of potash, 3½d., less 5% Liverpool; nitrate of soda, 8s.; paraffin scale, hard, 2¼d. to 2¾d. per lb., and soft, 3d. to 3¼d. per lb.; paraffin wax, 120° semi-refined, 3¼d. to 3½d. per lb.; paraffin spirit (naphtha), 11½d. to 1s. per gallon; paraffin oil (burning), No. 1, 6¾d., and crystal 7d. at Glasgow and other big centres, for Scotch buyers (English sales a shade lower); ditto (lubricating) 865°, £6. to £6. 5s.; 885°, £7. to £7. 10s. and 890/895°, £7. 10s. to £8.; salammoniac, first and second white, £40 and £38. nett, any port; saltcake, 28s.; soda ash, £4. 10s. to £4. 15s., nett Tyne; soda crystals, £2.15s. to £2. 17s 6d., basis, nett, Tyne; sulphate of ammonia, £11. to £11. 2s. 6d. prompt, f.o.b. Leith; sulphate of copper, £25., less 5% Liverpool; white alkali, £5. 2s. 6d. to £5. 10s. nett, Tyne.

TYNE CHEMICAL REPORT.

TUESDAY.

Market continues steady. Prices generally unchanged. Soda crystals are quoted at £2. 17s. 6d. per ton, gross weight, locally. Bleaching powder scarce and in demand at £6. 10s. to £7. Caustic soda, 70%, £9. 5s. per ton, and 76/77% £10. per ton. Sulphur firm at £4. 15s. per ton, net.

Bleaching powder, softs, £6. 15s. per ton, nett; do., hards, £7. per ton, nett; caustic soda, 76/77%, £10., and 70%, £9. 5s. per ton, nett; recovered sulphur, 2 cwt. bags, £4. 15s. per ton, nett; soda ash, 48%, £4 15s. per ton, nett; do., 50%, £4. 17s. 6d. per ton, nett; do., 52%, £5. 0s. per ton, nett; alkali, 36%, £4. 5s. per ton, nett; white alkali, 48%, £5. 2s. 6d. per ton, nett; do., 50%, £5. 6s. 3d. per ton, nett; do 52%, £5. 10s. per ton, nett; hyposulphite of soda, 5-7 cwt. casks, £6. 5s. per ton, nett; do., 1 cwt. kegs, £7. per ton, nett; silicate of soda, 75° Tw., £3. 5s. 0d. per ton, nett; do., 100° Tw., £3. 12s. 6d. per ton, nett; do., 140° Tw., £4. per ton, nett; soda crystals, casks, £2. 17s. 6d. per ton, gross weight; do., 2 cwt. bags, £2. 17s. 6d. per ton, nett weight; pearl hardening, £3. per ton, nett; pure white sulphate of alumina, £3. 10s. per ton, nett; blanc fixe, £6. 10s. per ton, nett; chloride of barium, refined crystals, £6. 15s. per ton, nett; do., crude calcined, £6. 5s. per ton, nett; carbonate of alumina, £30. per ton, nett; aluminate of soda, £30 per ton, nett.

SALT.—South Durham salt firm at 10s. per ton, f o b. Tees.

COALS.—The market continues exceptionally strong and the demand at the moment is altogether in excess of the production. Coke is very firm and best qualities command fully 32s. 6d. per ton, f.o.b. Tyne. To-day prices:—Best Northumbrian steam, 15s. to 16s. per ton; second qualities, 14s. to 15s. per ton; small steam, 8s. 6d. to 9s. per ton; bunker coals, 14s. to 14s. 6d. per ton; gas coals, 15s. to 16s. per ton; coke, 32s. 6d. per ton.

New Companies.

Canadian Crude Oil Synd., Ltd.—CAPITAL £5,000. in £1 shares. This company has been formed to adopt an agreement with Morison and Marshall, Ltd., to acquire and work mines, minerals, oils and natural gases, and to carry on the business of manufacturers and refiners of and dealers in naphtha, petroleum and other oils.

Robert I. Bateman & Co., Ltd.—CAPITAL £10,000. in £5 shares. This company has been formed to acquire the business carried on at Mill-street East, Savile Town, in the Parish of Thornhill, near Dewsbury, Yorks, under the style or firm of Robert I. Bateman and Co., to adopt an agreement with Robert I. Bateman, and to carry on the business of chemical manufacturers and merchants, drysalters, salt cake importers, and manufacturers of and dealers in sal-ammoniac, muriate of ammonia, nitric, hydrochloric, and other acids, dyers' materials.

Sahlstrom's, Ltd.—CAPITAL £25,000. in £1. shares. This company has been formed to produce, manufacture, sell, and deal in ozone and all electrodes and electrical and other apparatus connected therewith, and to carry on the business of chemical manufacturers, engineers, etc. The subscribers to the memorandum of association are:—J. Westaway, 47, Clipstone-street, Portland-road, engineer; J. E. Harris, Monmouth House, Stoke Newington, N., engineer; E. E. Strong, 36, Nunhead-lane, S. E., writer; C. G. Embleton, 26, Carlton-grove, Peckham, S.E., bookkeeper; W. L. Williams, 41, Crewdson-road, Brixton-road, S.W., bookkeeper; R. S. Darlasson, 162, Grosvenor-terrace, S.E., clerk; W. H. Nex, 10, Fetter-lane, E.C., clerk.

Port Said Salt Association, Ltd.—Capital £45,000. in £1. shares. This company has been formed to acquire a concession granted by the Egyptian Government for the working of salines at Port Said, and to carry on the business of miners, quarriers, chemists, druggists, drysalters, etc. The subscribers to the memorandum of association are:—A. Thorne, 116, Camden-street, N.W., accountant; G. T. St. J. Bishop, 77, Wroughton-road, Balham, S.W., clerk; S. J. Edwards, 39, Mansfield-road, Ilford, secretary; H. A. Nutland, 4, Fontarabia-road, Clapham Common, S.W., clerk; J. A. Ellis, 22, Dawes-road, Fulham, S.W., accountant; H. R. Ireland, Christ's House, St. John's-road, Walthamstow, bookkeeper; F. H. L. Shipton, 1, Weston Villas, Thames Ditton, bookkeeper.

Metal Electro Amalgamating Synd., Ltd.—Capital £20,000 in £1 shares. This company has been formed to acquire F. H. Snyder's invention for coating metals by an electrical process, and to carry on the business of metallurgists, chemical manufacturers, chemists, electro-platers, electricians, etc. The subscribers to the memorandum of association are:—H. Firmin, 31, Lombard-street, E.C., merchant; J. E. Bennett, 167, Kingsland-road, N.E., engineer; H. M. Johnson, 3, Westcombe Rise, Blackheath, commander, R.N.; J. H. Hall, 31, Lombard-streeet, E.C., merchant; J. J. Vivian, 24, Bonham-road, Brixton, S.W., lieutenant R.N. (retired); J. H. Matthew, 19, Chelsham-road, Clapham, S.W., clerk; M. J. Morley, Loriner Lodge, Sydney-road, Friern Barnet, N., clerk.

IMPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM

LONDON.
Week ending December 16th.

Acetate of Lime—
U. States, 419 bgs. Gillespie Brs. & Co.

Acetic Acid—
Holland, 300 pks. R. W. Greeff & Co.
" 175 Little & Johnston
" 50 A. & M. Zimmermann

Acetone—
Germany, 17 dms. J. Norrenberg & Co.
Austria, 16 E. J. Catlin

Alkali—
France, 2 t. J. Barber & Co.

Alum—
Holland, 464 pks. J. White
Germany, 10 T. H. Lee

Ammonia—
Holland, £221 H. Lorenz

Ammonium Nitrate—
Holland, 35 cks. S. E. Railway Co.

Ammonium Phosphate—
Holland, 7 pks. Chemical Works

Arsenic—
Germany, £104 Fuerst Brs.
Melbourne, 27 pks. G. H. Adams & Co.

Barium Chloride—
Germany, 46 pks. Petri Brs.

Barium Peroxide—
Germany, 632 L. & I. D. Jt. Co.

Barium Sulphate—
Belgium, 76 pks. J. L. Lyon & Co.
Holland, 38 "

Barytes—
Germany, 24 pks. R. W. Greeff & Co.
" 97 W. Harrison & Co.
" 100 J. L. Lyon & Co.
Holland, 38 "
" 66 Thames S. T. & L. Co., Ld.
" 15 Elkan & Co.
" 194 W. Harrison & Co.
Belgium, 180 "

Bleaching Powder—
Germany, 30 pks. J. M. Steel & Co.
France, 45 "

Bones—
Sydney, 8 t. Culverwell, Brooks, & Co.
N. Zealand, 2 "

Borax—
Germany, 80 pks. A. & M. Zimmermann

Bromine—
Germany, 142 cs A. & M. Zimmermann

Caoutchouc—
Germany, 2 t. 5 c. Prop. Bull Wf.
" 7 Stiebel Brs
Madagascar, 2 W. M. Smith & Sons
" 18 Procter Brs.
—— 1 W. Balchin, Ld.
Natal, 1 3 Lewis & Peat
" 8 Prop. Bull Wf.
Zanzibar, 1 9 L. & I. D. Jt. Co.
" 2 Clarke & Smith
" 4 Hale & Son
France, 13 Girard Brs. & Co.
" 13 H. Johnson & Sons
" 10 R. Ulrich
" 7 Prop. Bull Wf.
" 18 L. & I. D. Jt. Co.
Peira, 2 " "
Mozambique, 14 Forbes, Forbes, & Co.
Straits, 16 E. Boustead & Co.
" 70 Huttenbach & Co.
" 15 4 Gilman Brs. & Co.
" 5 W. Pope & Co.
" 5 Elkan & Co.
Holland, 26 16 J. Owen

Castor Oil—
E. Indies, 50 cs. L. & I. D. Jt. Co.
Italy, 10 R. Quincey & Sons
France, 48 brls. A. Brown & Co.

Caustic Potash—
Belgium, 13 drs. Petri Brs.

Chemicals *(otherwise unassorted)*
Germany, £28 G. Boor & Co.
" 10 J. Norrenberg & Co.
" 128 L. & I. D. Jt. Co.
" 35 Craven & Co.
" 70 H. Hart
" 12 H. Lorenz
" 10 Argo S. S. Co.
Belgium, 6 T. Palmer
" 20 C. Atkins & Nisbet
" 91 Leach & Co.
France, 95 Mory & Co.
Holland, 200 S. C. Jones
" 18 A. & M. Zimmermann

Citrate Lime—
Italy, 41 pks. Thames S. T. & L. Co., Ld.

Coal Products—
Carbolic Acid
Germany, 6 pks. Hollingburst & Co.
" 26 H. Lambert
Pitch
Sweden, 75 cks. M. D. Co.
Tar
Germany, 600 brls. Linck, Moeller, & Co.
U States, 525 "

Colours—
Germany, 4 cks. Craven & Co.
Holland, 4 R. Baelz & Co.
Italy, 4 brls. O'Hara & Hoar
" 22 B. Winstone & Sons

Cream of Tartar—
Holland, 8 pks. Kirkpatrick, Barr, & Co.
France, 24 W. C. Bacon & Co.
" 9 F. C. Devon & Co.

Dyestuffs—
Alizarine
Holland, 52 pks. M. Benscher
Aniline
Holland, 18 pks. M. Benscher
Argols
Italy, 405 pks. B. Jacob & Sons
" 45 Thames S. T. & L. Co., Ld.
Cochineal
Canaries, 11 pks. Swanston & Co.
Cutch
Rangoon, 400 pks. H. A. Litchfield & Co.
" 100 H. J. Perlbach & Co.
Straits 10 The Borneo Co.
Extracts
Denmark, 4 pks M. D. Co.
France, 30 J. L. Levinstein & Sons
" 50 B. & F. Wf. Co., Ld.
Austria, 70 brls. Bailey & Leetham, Ld.
" 130 cks. Boutcher, Mortimore, & Co.
Belgium 10 pks. "
Gambier
Straits, 2,342 pks. Prop. Hay's Wf.
" 200 Brinkmann & Co.
" 509 Beresford & Co.
" 709 J. Greig
Indigo
Holland, 1 brl. M. Benscher
Orchella
Germany, 3 bls. L. & I. D. Jt. Co.
Saffron
Germany, 6 pks. H. Rubeck
Spain, 1 cs. A. Owen
" 1 Richardson, Spence, & Co.
Sumach
Italy, 200 pks. J. Kitchin, Ld.
" 300 J. Graves
" 68 Houlder Brs. & Co.
Tanners' Bark
Natal, 59 t. A. & W. Nesbitt
" 30 J. T. Rennie, Son, & Co.
" 39 L. & I. D. Jt. Co.
Belgium, 11 Leach & Co.
Turmeric
Germany, 8 pks. W. M. Happe & Co.

Farina—
Germany, 2 pks. Craven & Co.
" 100 Dunlop Brs. & Co.
Holland, 55 J. Barber & Co.
" 200 R. Bennett & Co.
" 50 T. H. Lee
France, 3 Rosenberg, Loewe, & Co.
" 9 L. & I. D. Jt. Co.
U. States, 51 Lunham & Moore
Italy, 7 Girard Brs. & Co.
Sydney, 16 Montgomerie & Workman

Glucose—
U. States, 250 pks. 250 c. Trier, Meyer & Co.
" 500 500 C. Barnard
" 1,000 1,000 L. Frank & Co.
" 1,000 1,000 Thames S. T. & L. Co., Ld.
" 50 275 L. & I. D. Jt. Co.
" 250 250 L. Norman & Co., Ld.
" 1,300 1,300 E. Thompson & Co.
" 100 588 J. Keiller & Son
" 1,500 1,500 Pickford & Co.
" 1,000 1,000 Ohlenschlager Brs
" 25 150 A. B. Curtis & Co.
" 1,909 1,052 H. A. Litchfield & Co.
" 500 500 C. Mangold & Co.
" 11,950 12,450 R. G. Hall & Co.
" 850 850 Pearce, Pelly, & Co.
Germany, 20 165 M. D. Co.
" 25 204 Beresford & Co.
France, 400 400 L. Norman & Co., Ld.
" 200 200 W. E. Cole & Co.

Glue—
Germany, £18 Craven & Co.
" 1,513 Becker & Wagner
" 352 L. & I. D. Jt. Co
" 600 Deering & Robottom
" 503 M. H. Voss
" 600 T. H. Lee
Holland, 19 "
" 27 Hernu, Peron, & Co.
" 330 M. H. Voss
" 35 Netherlands S. B. Co.
France, 930 T. M. Duche & Sons
" 40 Prop. Hay's Wf.
U. States, 23 L. & I. D. Jt. Co.

Glycerine—
Holland, £240 J. Barber & Co.
Germany, 150 T. H. Lee
—— 13 Taddy & Co.
France, 370 W. Balchin, Ld.

Gutta Percha—
Straits, 9 t. 2 c. W. Pope & Co.
" 5 3 Huttenbach & Co.
" 8 17 Union L. Co., Ld.
" 26 16 Gilman Brs. & Co.
" 47 Soundy & Son
" 20 H. Kiver & Co.
" 3 10 Prop. Bull Wf.
" 24 16 Anderson, Webster, & Smith
" 7 10 Kleinwort, Sons & Co.
" 1 2 L. & I. D. Jt. Co.
Venezuela, 4 27 "
Japan, 19 20 "
Germany, 18 Prop. Bull Wf.
" 3 16 Soundy & Son
" 1 J. Barber & Co.
Borneo, 25 R. F. Muller & Co.
Norway, 1 W. E. Bott & Co.

Magnesium Chloride—
Germany, £40 T. H. Lee

Manganese Ore—
Japan, 27 t. W. Pope & Co.

Manure—
Bombay, 98 t. Fox, Roy, & Co.
" 100 T. T. Creed
" 200 Walker, Howard, & Co.
" 100 E. Packard & Co.
" 200 A. Hunter & Co.
Calcutta, 307 "

Methylic Alcohol—
Austria, 2,653 g. D. Thom Dominic & Co.
France, 1,430 Lister & Biggs

Molasses—
U. States, 150 cks. 85 c. Deering & Robottom
" 200 1,147 Ohlenschlager Brs.
" 650 3,715 J. Forest
" 50 315 C. Barnard
Holland, 800 3,250 Ohlenschlager Brs.

Ochre—
France, 53 cks. J. L. Lyon & Co.
" 351 W. Harrison & Co.
" 3 pks. L. & I. D. Jt. Co.
Spain, 104 brls. Silicate Paint Co.
" 39 W. Simmons

Paraffin Wax—
U. States, 100 brls. H. Hill & Sons
" 650 cs. Anglo-American Oil Co.
Germany, 7 T. H. Lee

Phosphate—
France, 540 t. A. Hunter & Co.
Holland, 240 West & Penrose

Phosphates (Acid)—
U. States, 100 pks. Seaward Brs., Ld.

Phosphoric Acid—
Germany, 8 pks. Argo S. S. Co.
" 8 Fuerst Brs.

Potash—
Belgium, 6 cks. T. H. Lee
U. States, 7 t. S. Ward & Co.

Potassium Bichromate—
Germany, 3 pks. R. W. Greeff & Co.

Potassium Carbonate—
Germany, 1 t. 8 c. H. Lambert
" 22 J. M. Steel & Co.
" 7 15 Petri Brs.

Potassium Muriate—
Germany, 300 bgs. Bessler, Waechter, & Co.

Potassium Oxalate—
Holland, 10 pks. R. W. Greeff & Co.
Potassium Permanganate—
Germany, 65 kgs. R. W. Greeff & Co.
Potassium Sulphate—
Germany, 500 pks. Perkins & Homer
Pyrites—
Bossmo, 2,000 t. Gas Light & Coke Co.
Portugal, 975 Mason & Barry
Red Lead—
Germany, 40 pks. F. C. Strick & Co.
,, 12 H. Lambert
Rosin—
Austria, 1 brl. Nich's Whvs, Ld.
France. 14 J. Watt & Son
Salammoniac—
Germany, £38 A. & M. Zimmermann
Saltpetre—
Germany, 120 cks. P. Hecker & Co.
,, 4 T. H. Lee
,, 200 bgs. H. Grey, junr.
E. Indies, 491 Perkins & Homer
,, 696 Lucas & Spencer's Wf.
Soda Crystals—
Belgium, 6 t. Leach & Co
Sodium Acetate—
France, 120 pks. J. Harrison
Belgium. 19 ,,
Sodium Bichromate—
Germany, 44 pks. H. J. Hughes
Sodium Hyposulphite—
Germany, 10 t. 14 c. H. Lambert
Sodium Nitrate—
Holland, 8 cks. G. S. N. Co.
Sodium Sulphide—
Germany, 30 pks. H. J. Hughes
Starch—
Holland, 366 pks. Little & Johnston
,, 80 G. S. N. Co.
,, 40 J. Forsey
,, 200 R. Bennett & Co.
U. States, 125 ,,
,, 275 Pickford & Co.
,, 2,125 Union Ligc. Co, Ld.
,, 120 Ohlenschlager Brs.
,, 125 L. & I. D. Jt. Co.
Germany, 1,000 Horne & Co.
,, 117 Argo S. S. Co.
Belgium, 400 Becker & Wagner
,, 80 C. Tennant, Sons & Co.
,, 650 Sawer, Sons, & Co.
,, 580 T. Ronaldson & Co.
,, 69 Leach & Co.
,, 5 T. H Lee
France, 60 J. E. Maeder
,, 292 A. C. Hitchcock
,, 10 W. H. Carey & Sons
,, 60 B. & F. Wf. Co, Ld.
,, 732 W. E. Cole
Stearine—
France, 320 cks. G. Boor & Co.
U. States, 30 Pickford & Co.
Straits, 48 Fellows, Morton, & Co
Holland, 10 Netherlands S. B. Co.
,, 64 bgs. H. Hill & Sons
Belgium, 63 ,,
,, 4 cks. ,,
Sulphate (Alumina)—
Holland, 21 pks. R. W. Greeff & Co.
,, 61 H. Wallace & Co.
,, 21 Little & Johnston
Belgium, 100 Taylor Brs.
Sulphur—
Italy, 8 t. J. Kitchin, Ld.
,, 7 E. & T. Pink
,, 5 F. C. Devon & Co.
,, 7 J. Barber & Co.
,, 100 Johnson & Hooper
——, 10 T Palmer
Tallow—
France, 75 pks T. S. Harris & Co.
Belgium, 25 cks. Sawer, Sons, & Co.
Germany, 6 J. Owen
N. Zealand, 152 L. & I. D. Jt. Co.
,, 80 J. W Cook & Co, Ld.
,, 57 J. Graves
,, 125 Beresford & Co.
,, 400 Phillipps & Graves
,, 29 Deering & Robottom
,, 45 N. Z. L. & M. A. Co.
,, 132 Brown & Elmslie
,, 27 H. Barklay & Co.
,, 3 Culverwell, Brooks, & Co.
,, 27 Dyster, Nalder. & Co.
N.S.W., 25 Dalgety & Co, Ld.
,, 50 Symon's Wf.
Tartar—
Italy, 134 pks. B. Jacob & Sons
,, 14 Howards & Sons

Tartaric Acid—
France, 60 pks. B. & F. Wf. Co., Ld.
Ultramarine—
Holland, 25 pks. Thames S. T. & L. Co., Ld.
,, 2 G. S. N. Co.
,, 2 H. Keller & Co.
,, 29 Netherlands S. B. Co.
Germany, 20 ,,
Varnish—
Belgium, 15 pks. J. L. Lyon & Co.
,, 2 Wilson & Co.
Norway, 10 M. D. Co.
White Lead—
Belgium, 19 pks. Leach & Co.
,, 19 W. A. Rose & Co.
,, 129 J. L. Lyon & Co.
,, 100 R. Steuert
Germany, 23 H. B. Alder & Co
,, 60 Randall Brs.
,, 11 R. W. Greeff & Co.
,, 12 O. Roquar
,, 40 Wilkinson, Heywood & Co.
,, 1 Burrell & Co.
Holland, 23 W. A. Rose & Co.
,, 80 Randall Brs.
,, 20 Netherlands S. B. Co.
Wood Pulp—
Norway, 1,500 pks. Johnsen & Jorgensen
,, 800 E. J. & W. Goldsmith
,, 9,372 London Paper Mills Co.
Sweden, 368 Andrews & Co., Ld.
, 488 Tough & Henderson
U. States, 288 A. E. Reed & Co.
Zinc Oxide—
Germany, 12 pks Prprs. Dowgate Dk.
,, 500 Soundy & Sons
,, 80 M. Ashby, Ld.
U. States, 400 ,,
Holland, 317 ,,
,, 12 Kerestedji & Co.
,, 40 Fellows, Morton, & Co.
Zinc White—
Holland, 40 pks. J. Barber & Co.

LIVERPOOL.

Week ending December 14th.

Antimony Ore—
Mollendo, 230 bgs. Merchants' Bank
Barytes—
Antwerp, 351 bgs. / 91 cks.
Hamburg, 11 / 100 bls.
Bones—
Smyrna, 309 bgs.
Borax—
Antofagasta 2,800 sks. Borax Consl. Co.
Iquique. 7,375
Mollendo, 2,794 ,,
Castor Oil—
Calcutta, 49 cs.
Caustic Potash—
Bremen, 20 dms.
Chemicals (*otherwise undescribed*)
Hamburg, 2 cs
Citric Acid—
Bordeaux, 1 cs.
Coal Products—
Pitch
Boston, 1 bx. Boston Blacking Co.
Colours—
Antwerp, 4 cks / 3 cs.
Hamburg, 2
Cottonseed Oil—
Newport News, 250 brls.
Cream of Tartar—
Bordeaux, 68 cks.
St. Nazaire, 1
Dyestuffs—
Argols
Oporto, 2 crts. / 5 sks.
Cochineal
Teneriffe, 64 bgs. Caulfield, Wilson, & Co.
Extract
Baltimore, 50 brls.
Bordeaux, 100 cks. R. J. Francis & Co.
Havre. 10
New York, 80 brls. 50 bxs. McArthur & Co.
St. Nazaire, 170 cks.

Gambier
Singapore. 4,835 bls.
Valonia
Havre, 100 bgs. Cunard S.S Cc.
Patras, 195
Farina—
Fiume, 230 bgs. / 300 bls.
Glucose—
Baltimore, 50 brls.
Boston, 200 T. M. Duche & Sons
,, 400
Newport News, 600
Glue—
Antwerp, 7 cks.
Havre, 4 bgs. Cunard S.S. Co.
Hamburg, 201 / 2 cks.
St. Nazaire, 8
Iodine—
Valparaiso, 32 brls. A Gibbs
45 kgs. & Sons
Lamp Black—
Gothenburg, 50 cks. Goodlass, Wall, & Co.
Limestone—
Antwerp, 3 crts. / 3 cs.
Logwood—
Havre, 1,117 pcs. Cunard S S. Co.
Laguna, 1,037 lds. A. A. Morbet & Co.
Magnesite—
Fiume, 281 sks.
Manganese—
Valparaiso. 600 t.
Mineral White—
Fiume, 50 bgs. T. Durrans
Trieste, 200
Paint—
Boston, 2 cks. Pearson & Bennion
Painters' Colours—
Bremen, 12 cks.
Paraffin Wax—
New York, 1,550 brls. Thompson & Bedford
,, 193 Anglo-Amer. Oil Co.
Phosphate—
Beaufort, 3,040 t.
Ghent, 1,500 bgs. J. T. Fletcher & Co.
,, 1 lot
Pensacola, 536 t.
Pyrites—
Huelva, 2,896 t. Matheson & Co.
Rosin—
Bordeaux, 722 cks.
Saltpetre—
Hamburg, 52 cks.
Soap—
Bari, 104 cs.
Marseilles, 75 G. H. Fletcher & Co.
Newport News, 100 bxs.
New York, 3 cs. Colgate & Co.
,, 1,800 R. Singlehurst & Co.
Soapstone—
Genoa, 100 bgs.
Soda—
Fiume, 130 cks.
Genoa, 30 brls.
Sodium Nitrate—
Caleta Buena, 47,100 qntls. J. H. Schroder & Co.
Starch—
Boston, 125 brls. / 50 bxs. / 200 bgs.
Ghent, 1 pk. 6 cs. J. T. Fletcher & Co.
Hamburg, 40
Stearine—
Antwerp, 1 ck. J. T. Fletcher & Co.
,, 34 bgs.
Sulphur—
Bari, 10 brls.
Talc—
Genoa, 50 pks.
Trieste, 200 bgs.
Tallow—
Boston, 50 brls.
Halifax, 31 T. Boyd & Co
Tartar—
Naples, 2 cks.
Varnish—
Boston, 6 pks. W. H. Staynes & Smith

Waste Salt—
Hamburg, 100 t.
Wood Pulp—
Boston, 292 bdls.
Gothenburg, 10 bls. L. S. Dixon & Co.
Halifax, 2,618 Becker & Co.
,, 900 Mauritius Sul. Fibre Co.
New York, 499 rolls
Zinc Ashes—
Genoa, 4 cks.
Zinc Oxide—
Antwerp, 51 bls.

MANCHESTER.

Week ending December 16th.

Acetic Acid—
Rotterdam, 13 blns.
Ammonia Salt—
Antwerp, 44 cks.
Antimony Salt—
Hamburg, 2 cks.
Rotterdam, 2
Barytes—
Antwerp, 169 bgs.
Hamburg, 28 cks.
Bones—
Antwerp, 1 bg.
Caustic Lye—
Hamburg, 40 dms.
Chemicals (*otherwise unaescribed*)
Rotterdam 6 cks.
Coal Products—
Alizarine
Rotterdam, 79 cks. 3 cs.
Aniline Colours
Rouen, 2 cks.
Rotterdam, 28 152 brls. / 29 cs.
Aniline Salt
Rotterdam, 19 cks.
Colours—
Antwerp, 6 cks.
Hamburg, 4 cs.
Rotterdam, 18 11
Rouen, 5
Dyestuffs—
Extract
Rouen, 20 cks.
Farina—
Hamburg, 200 bgs.
Rotterdam, 450
Stettin, 2,500 Browne, Geveke & Co.
,, 2,700
Gelatine—
Hamburg, 40 bgs.
Glucose—
Stettin, 1,200 bgs. / 304 cks.
Glue—
Antwerp, 70 bgs. 47 brls.
Hamburg, 10
Rotterdam, 270
Rouen, 18 cks. 74 bls.
Glue Stock—
Antwerp, 18 bls.
Limestone—
Antwerp, 1 cs. J. T. Fletcher & Co.
,, 17
Ghent, 3
Potassium Prussiate—
Antwerp, 3 cks.
Pyrites—
Huelva, 1,397 t.
Red Lead—
Rotterdam, 2 cks.
Saltpetre—
Hamburg, 10 bgs.
Stettin, 138
Soda—
Hamburg, 8 brls.
Sodium Nitrate—
Rotterdam, 52 brls.
Sodium Phosphate—
Rotterdam, 9 cks.
Starch—
Antwerp, 170 cs.
Ghent, 160
Hamburg, 130
Rotterdam, 87
Stearine—
Antwerp, 63 bgs.
Tannic Acid—
Hamburg, 9 cs.

Tar Salts—
Rotterdam, 4 ckr.
Tartar Emetic—
Hamburg, 1 ck.
Ultramarine—
Hamburg, 5 cs.
Waste Salt—
Hamburg, qty.
Wood Pulp—
Christiania, 6,070 bls. W. H. Ingram
Gothenburg, 3,807 530 bdls.
Hamburg, 170 pks.
Holmestrand, 3,000 W. H. Ingram
Rotterdam, 100
Stettin, 79
Zinc Ashes—
Antwerp, 2 brls.
Zinc Oxide—
Antwerp, 3 cks.
Zinc Sulphate—
Gothenburg, 20 bgs.

HULL.

Week ending December 16th.

Acetic Acid—
Rotterdam, 20 btls. Hull & Netherlands S. S. Co.
Asbestos—
Hamburg, 2 bls. Bailey & Leetham, Ld.
,, 17 ,,
Barytes—
Amsterdam, 79 cs. Hull & Netherlands S. S. Co.
Antwerp, 105 cks. H. F. Pudsey
Bremen, 46
Hamburg, 2 Bailey & Leetham, Ld.
Bichromate—
Hamburg, 8 cks. Wilson, Sons, & Co., Ld.
Borax—
Hamburg, 10 cks.
Chemicals *(otherwise undescribed)*
Ghent, 50 bgs. Wilson, Sons, & Co., Ld.
Coal Products—
Alizarine
Rotterdam, 112 pks. Hull & Netherlands S. S. Co.
34 brls.
Colours—
Antwerp, 46 pks. Wilson, Sons, & Co., Ld.
6 cks.
,, 15 Bailey & Leetham, Ld.
Hamburg, 20
Rotterdam, 2 brls. Hull & Netherlands S. S. Co.
2 cks.
297 pks.
Cream of Tartar—
Bordeaux, 1 ck.
Rotterdam, 6 Hull & Netherlands S. S. Co.
Dyestuffs—
Indigo
Rotterdam, 8 cs. Hull & Netherlands S. S. Co
Dyewood—
Antwerp, 148 bgs. Wilson, Sons, & Co., Ld.
Rotterdam, 1 ck. Hull & Netherlands S. S. Co.
Farina—
Harlingen, 200 bls. Hull & Netherlands S. S. Co.
Stettin, 500 bgs. Wilson, Sons, & Co., Ld.
Glucose—
Rotterdam, 80 bgs. Hull & Netherlands S. S. Co.
Stettin, 10 cks. Wilson, Sons, & Co., Ld.
100 bgs.
Glue—
Antwerp, 10 bgs. Wilson, Sons, & Co., Ld.
Christiansund, 3 brls. ,,
Rotterdam, 3 bls. Hull & Netherlands S. S. Co.
Stettin, 133 pks. Wilson Sons, & Co., Ld.
Lead Acetate—
Hamburg, 1 ck.
Limestone—
Antwerp, 4 cs. Wilson, Sons, & Co., Ld.
Mineral White—
Rotterdam, 4 cks. Hull & Netherlands S. S. Co.
Nitro-benzol—
Rotterdam, 2 cs. Hull & Netherlands S. S. Co.
Phosphate—
Antwerp, 50 t. Wilson, Sons, & Co., Ld.
Potash—
Antwerp, 19 dms. Wilson, Sons, & Co., Ld.
Dunkirk, 21 ,,
Red Lead—
Rotterdam, 8 cks. Hull & Netherlands S. S. Co.
Rosin—
Hamburg, 8 brls.
Saltpetre—
Hamburg, 26 cks. Wilson, Sons, & Co., Ld.
Soap—
New York, 9 bxs. Wilson, Sons, & Co., Ld.
Soda—
Amsterdam, 135 bgs. Hull & Netherlands S. S. Co.
Antwerp, 450 Wilson, Sons, & Co., Ld.
Ghent, 100
Starch—
Amsterdam, 20 bgs. Hull & Netherlands S. S. Co.
40 cs.
Antwerp, 160 Wilson, Sons, & Co., Ld.
Ghent, 160 ,,
Stearine—
New York, 8 hds.
Tallow—
Dunkirk, 70 cks. Wilson, Sons, & Co., Ld.
Tartaric Acid—
Rotterdam, 6 cks. Hull & Netherlands S. S. Co.
Turpentine—
Riga, 104 brls. Wilson, Sons, & Co., Ld.
Waste Salt—
Hamburg, 100 bgs.
White Lead
Antwerp, 41 cks. Bailey & Leetham, Ld.
,, 23 Wilson, Sons, & Co., Ld.
Rotterdam, 59 Hull & Netherlands S. S. Co.
13 cs.
Wolfram Metal—
Hamburg, 8 cs. Wilson, Sons, & Co., Ld.
Wood Pulp—
Abo, 310 bls. J. Good & Sons
,, 40
Christiania, 2,715 pks. Wilson, Sons, & Co., Ld.
Drontheim, 820 ,,
Gothenburg, 1,186 ,,
,, 128 ,,
Hamburg, 142 ,,
,, 160 Bailey & Leetham, Ld.
Stettin, 520 Wilson, Sons, & Co., Ld.
Zinc Oxide—
Antwerp, 46 brls. Bailey & Leetham, Ld.

GLASGOW.

Week ending December 21st.

Acetic Acid—
Rotterdam, 10 crbys. J. Rankine & Son
Asbestos—
Portland, M., 240 bgs.
Barium Chloride—
Rotterdam, 6 cks. J. Rankine & Son
Barium Sulphate—
Antwerp, 1,800 bgs.
76 cks.
Barytes—
Hamburg, 42 cks.
Blanc Fixe—
Hamburg 25 cks.
Blood Albumen—
Hamburg, 5 cks.
Bones—
Bombay, 527 bgs.
Castor Oil—
Antwerp, 90 cks.
Chemicals *(otherwise undescribed)*
Rotterdam, 5 cs. J. Rankine & Son
Coal Products—
Aniline
Amsterdam, 2 cks. J. Rankine & Son
Rotterdam, 8 ,,
Colours—
Antwerp, 1 ck.
Hamburg, 8 pks.
Rotterdam, 162 1 bx.
10 cks. J. Rankine & Son
4 cs.
16 brls.
Cream of Tartar—
Barcelona, 5 cks.
Dyestuffs—
Extract
St. John, Nfd., 5 tcs.
Myrabolams
Bombay, 1,790 bgs.
Farina—
Delfszyhl, 1,650 pks. J. Rankine & Son
Gelatine—
Hamburg, 11 cs.
Glue—
Antwerp, 21 cks.
Lead Acetate—
Amsterdam, 14 cks. J. Rankine & Son
Manure—
Bombay, 10,490 bgs.
Mica—
St. John's, Nfd. 15 bxs.
Paint—
Christiania, 8 cs.
Paracul Acid—
Amsterdam, 2 cs. J. Rankine & Son
Potash—
Antwerp, 9 cks. Crawford & Co.
Hamburg, 18 cs.
Rotterdam, 97 cks. J. Rankine & Son
Potassium Chloride—
Hamburg, 1,000 bgs.
Pyrites—
Huelva, 1,627 t. Tharsis Sulp. & Copper Co.
Red Lead—
Rotterdam, 8 cks. J. Rankine & Son
Rosin—
Wilmington, 2,000 brls. D. Geddes
Starch—
Antwerp, 30 bgs.
80 cs.
Rotterdam, 13 J. Rankine & Son
Stearine—
New York, 250 brls.
Tallow—
Halifax, 120 tcs.
Tannin—
Hamburg, 2 cs.
Turpentine—
Wilmington, 750 brls. L. & J. M'Lellan
White Lead—
Rotterdam, 116 cks. J. Rankine & Son
30 brls.
Wood Pulp—
Christiania, 1,915 bls.
Christiansand, 943
Halifax, 460
Zinc Sulphite—
Rotterdam, 8 cks. J. Rankine & Son
Zinc White—
Rotterdam, 25 pks. J. Rankine & Son

TYNE.

Week ending December 16th.

Acid—
Hamburg, 2 cs. Tyne S. S. Co.
Alkali—
Hamburg, 19 cks Tyne S. S. Co.
Alum Earth—
Stettin, 83 cks. J. Hulsen & Co.
Asbestos—
Rotterdam, 2 bls. Tyne S. S. Co.
Barytes—
Amsterdam, 22 cks. W. Swanston & Sons
Hamburg, 20 Tyne S. S. Co.
Rotterdam, 160 bgs. ,,
Carbonite—
Rotterdam, 930 cs.
Coal Products—
Pitch
Hamburg, 69 cks.
Tar
Libau, 6 brls.
Colours—
Hamburg, 7 cks.
1 cs. S.
Glue—
Hamburg, 20 bgs.
Kainit Salt—
Hamburg, 315 bgs.
Limestone—
Antwerp, 8 crts. Tyne S.
Manganesite—
Hamburg, 20 cs. Tyne S.
Pyrites—
Huelva, 1,766 t. T
Sulphur & Coppe
Soap—
Rotterdam, 12 cs. Tyne S.
Starch—
Ghent, 30 cs. Tyne S.
Rotterdam, 40
Turpentine—
Libau, 1 brl.
Waste Salt—
Hamburg, 370 t.
White Lead—
Antwerp, 12 cks. Tyne S.
Wood Pulp—
Christiania, 834 bls. Matthiessen &
Gothenburg, 1 bg.
Hamburg 40 pks.
Zinc Sulphate—
Gothenburg, 50 bgs.

GOOLE.

Week ending December 13th

Antimony—
Boulogne, 5 cks.
Barytes—
Antwerp, 20 bgs.
57 cks.
Caoutchouc—
Boulogne, 8 cks.
Colours—
Amsterdam, 3 cks.
Antwerp, 1 cs.
Boulogne, 20 27 pks.
Ghent, 1
Hamburg, 4
Rotterdam, 266 22
Farina—
Hamburg, 1,350 bgs.
Glue—
Ghent, 5 cks. 7 bs.
Potash—
Hamburg, 10 cks.
Pyrites—
Huelva, 1,085 t.
Saltpetre—
Hamburg, 6 cks.
Rotterdam, 170 bgs.
Sodium Nitrate—
Hamburg, 365 bgs.
Starch—
Ghent, 56 cs.
Tartar—
Rotterdam, 8 cks.
Waste Salt—
Hamburg, 170 cks.

GRIMSBY.

Week ending December 16th.

Caoutchouc—
Antwerp, 2 cs.
Hamburg, 15 2 pks.
Rotterdam, 1
Chemicals *(otherwise undescribed*
Hamburg, 80 cks. 1 cs. 11 pks.
Colours—
Antwerp, 4 cks. 153 pks.
Hamburg, 2 8 cs. 123
Rotterdam, 1 2
Glue—
Hamburg, 1 ck.
Saltpetre—
Hamburg, 100 bgs.

EXPORTS OF CHEMICAL PRODUCTS
AT
THE PRINCIPAL PORTS OF THE UNITED KINGDOM.

LONDON.

Week ending December 20th.

Alkali—
New York, 7 t. 12 c. £127

Ammonium Carbonate—
Hamburg, 10cks. 10brls. 17pks. £122
Kobe, 2 t. 10 c. 79
Stockholm, 1 15 53

Ammonium Muriate—
Melbourne, 1 t. 4 c. £20

Ammonium Nitrate—
New York, 10 cks. £45

Ammonium Sulphate—
Antwerp, 150 t. £1,688
Bremen, 150 1,689
Demerara, 45 520
Genoa, 150 1,700
Hamburg, 150 1,734
Marseilles, 27 15 c. 311

Arsenic—
Hiogo, 2 t. 10 c. £52
Singapore, 1 24

Basic Slag—
Demerara, 93 t. 1 c. £180
Hobart, 500 1,625

Bone Ash—
Mauritius, 25 t. £95

Borax—
Boston, 2 t. 11 c. £42
Mannheim, 3 17 65

Caustic Soda—
Auckland, 1 t. 8 c. £24
Bombay, 1 17
Dunedin, 2 2 27
Hong Kong, 11 16
Nelson, 1 12

Chemicals (*otherwise undescribed*)
Adelaide, 44 pks. £82
B. Ayres, 150 171
Brussels, 1 cs. 15
Cologne, 34 cks. 237
Colombo, 1 30
Demerara, 78 cbys. 20
Dunedin, 233 19
Fremantle, 7 90
Madras, 11 kgs. 11
Marseilles, 24 28
New York, 32 500
Rotterdam, 4 31
Singapore, 3 23
Venice, 1 45
Wellington, 16 136
Yokohama, 13 28

Citric Acid—
Auckland, 2 c. £14
Bombay, 3 14
Brussels, 12 kgs. 76
Dunedin, 1 7
Durban, { 2 / 1 cs. 34
Genoa, 15 1 brl. 108
Hamburg, 28 3 pks. 233
Hiogo, 10 15 c. 166
Invercargill, 5 37
Kobe, 19 65
Riga, 10 62
Rotterdam, 13 91

Coal Products—
Aniline Colours
Melbourne, 1 cs. £7
Carbolic Acid
Hong Kong, 25 dms. £12
Karachi, 1 cs. 7
Coal Tar Dyes
Auckland, 10 pks. £123
Boston, 4 42
Creosote
Newport News, 1 cs. £9
Creosote Salt
Philadelphia, 667 bgs. £120
Naphtha
Boulogne, 2 brls. 12
Lyttelton, 40 dms. 23
Naphthaline
Cologne, 8 cks. £70
Libau, 2 17
Treport, { 23 / 25 bgs. 53
Naphthaline Salt
Philadelphia, 1,805 bgs. £490
Rotterdam, 121 25
Pitch
Alexandria, 600 brls. £231
Amsterdam, 990 t. —
Bombay, 53 27
Brisbane, 10 pks. 7
Dunedin, 8 5
Dunkirk, 440 788
Naples, 1,254 —
Sydney, 12 cks. 17
Wellington, 3 cs. —
Pyridine
Hamburg, 11 dms. £249
Mannheim, 12 cks. 121
Tar
Bombay, 76 rnlts. £67
B. Ayres, 90½ brls. 69
Brisbane, 50 dms. 9
Colombo, 10 10
Dunedin, 16½ 5
Durban, 303 19
Hamburg, 400 180
Lyttelton, 25 9
Rangoon, 5 cks. 5
Wellington, 5 7
Toluol
Rotterdam, 52 cks. £140

Coal Products (*otherwise undes.*)—
Sydney, 8 crates £11

Copper Sulphate—
Amsterdam, 8 t. 17 c. £203
Brisbane, 12 313
Hobart, 1 25
Oporto, 5 14 120

Cream of Tartar—
Auckland, 10 c. £38
Durban, 6 26
Melbourne, 2 t. 10 192
Wellington, 10 39

Disinfectants—
Brisbane, 30 cks. £10
Cape Town, 23 cs. 50
Colombo, 27 25
Durban, 156 pks. 73
Jamaica, 48 25
Newcastle, 50 70

Manure—
Demerara, 50 t. £500
Jersey, 203 15 c. 1,262
Penang, 5 65
Teneriffe, 4 30
Treguier, 150 500

Oxalic Acid—
Karachi, 5 cs. £10

Oxygen Gas—
Amsterdam, 1 cs. £14

Phosphorus—
Dunedin, 11 cs. £91

Potash—
M. Video, 1 t. 8 c. £26

Potassium Cyanide—
Calcutta, 2 c. £12
Delagoa Bay, 15 cs. 168
Durban, 85 952
Fremantle, 1 t. 9 130
Geraldton, 10 56
Greymouth, 10 1,026
Melbourne, 2 205
New York, 22 100 3,220
Sydney, 7 802
Townsville, 40 464

Potassium Prussiate—
New York, 37 cks. £487
Yokohama, 1 t. 60

Salicylic Acid—
Melbourne, 2 cs. £20

Saltpetre—
Christchurch, 12 c. £13
Oporto, 11 t. 1 217

Sheep Dip—
B. Ayres, 63 t. 11 c. £2,508
M. Video, 300 cks. 150
Penang, 4 t. 79
Pt. Chalmers, 600 cs. 1,650

Soda—
Melbourne, 1 t. £7

Sodium Acetate—
Dunedin, 3 t. 10 c. £47

Sodium Bicarbonate—
Auckland, 3 t. £22
Brisbane, 18 c. 26

Sodium Hyposulphite—
Hong Kong, 1 t. £7

Sulphite Lime—
New York, 12 c. £95

Sulphite Soda—
New York, 1 t. 3 c. £125

Sulphur—
M. Video, 5 cs. £10
Pt. Elizabeth, 1 t. 2 c. 12

Sulphuric Acid—
Durban, 15 cs. £27

Superphosphate—
Cape Town, 10 t. £30

Tartaric Acid—
Antwerp, 5 cs. £23
Auckland, 2 c. 11
Bombay, 2 14
Sydney, 20 kgs. 107
Wellington, 3 17

LIVERPOOL.

Week ending December 20th.

Acetic Acid—
Barcelona, 2 t. 3 c. £43
Copenhagen, 4 16 95
Lisbon, 3 9 3 q. 26

Ammonia—
B. Ayres, 1 t. 2 c. £37

Ammonium Acetate—
Vera Cruz, 1 c. £6

Ammonium Carbonate—
Corunna, 4 c. £6
Guayaquil, 3 6
Havana, 1 t. 1 37
Hiogo, 1 1 3 q. 29
Pernambuco, 5 cs. 16
Stettin, 5 12 c. 174

Ammonium Muriate—
Barcelona, 1 t. 8 c. £30
New York, 10 236
Smyrna, 11 13

Ammonium Sulphate—
Alicante, 15 t. 5 c. £173
Cartagena, 69 16 3 q. 860
Genoa, 50 5 578
Gd. Canary, 36 6 451
L. Palmas, 13 167
Loanda, 1 8 15
Malaga, 25 9 2 268
N. York, 101 1,158
Philadelphia, 78 15 893
Valencia, 75 11 2 896

Antiseptics—
Bombay, 6 t. 2 c. 3 q. £83

Basic Slag—
Barbadoes, 24 t. 18 c. £70
Oporto, 100 bgs. 28

Bisulphite of Lime—
Rangoon, 24 brls. £22

Bleaching Powder—
Allepey, 6 cs.
Ancona, 100 dms.
Baltimore, 44 cks.
Boston, 770
Chicago, 80 bxs.
Gothenburg, 51
Leghorn, 29
Mexico City, 61
Muncil, 76
N. York, 383
Oporto, 69
Spring Grove, 110
Venice, 15

Bone Dust—
Stockholm, 25 t. £120

Boracic Acid—
Stettin, 5 t. 3 c. 2 q. £133
Vancouver, B.C., 1 3 30
Yokohama, 3 70

Borax—
Antwerp, 1 t. 9 c. 3 q. £25
B. Ayres, 9 2 8
M. Video, 6 1 6
Marseilles, 1 16
Rotterdam, 13 3 2 226
Stamboul, 1 17
St. John, N.B., 1 2 3 20
Vera Cruz, 2 12 34

Calcium Chloride
Bari, 24 t. 19 c. £67
New York, 10 3 22
Sydney, 13 7 33

Caustic Potash—
Baltimore, 3 t. 16 c. £100
Manaos, 5 7

Caustic Soda—
Adelaide, 32 dms.
Amsterdam, 417
Ancona, 100
Arecibo, 10
Barcelona, 225 20 cks. 450 pks.
Bari, 128 84
Bilbao, 65 78
Brindisi, 20
B. Ayres, 145
Ceara, 20
Chicago, 85 bxs. 20 brls.
Coquimbo, 50
Corunna, 8
Dunkirk, 25
E. St. Louis, 75
Genoa, 25
Grahamstown, 14
Hamburg, 18
Hamilton, 100
Havana, 20
Hiogo, 273
Kobe, 122
Lisbon, 30
Madrid, 150
Malta, 15
Naples, 60
N. Orleans, 100
New York, 100
Oporto, 45
Osaka, 100
Mexico, 69
M. Video, 75
Palermo, 15
Para, 20
Pernambuco, 25 30
Reval, 120
Rouen, 49
Salamanca, 35
San Francisco, 125
Seville, 30
Singapore, 10
Sourabaya, 10
Stockholm, 15
Sydney, N.S.W. 28 10
Syra, 5
Tampico, 30
Tarragona, 30
Woodstock, 144
Yokohama, 50

Chemicals (*otherwise undescribed*)
Alexandria, 20 cks. £76
Barcelona, 6 76
Bari, 2 t. 10
Beyrout, 5 1 c. 22
Calcutta, 80 brls. 436
Cape Town, 3 10 18
Dedeagatch, 1 ck. 6
Genoa, 4 30
Guayaquil, 1 t. 4 1 q. 6
Lisbon, 10 2 50
Melbourne, 5 8
New York, 1 3 36
Rio de Janeiro, 1 ck. 20
Smyrna, 5 t. 8 24
Varna, 3 brls. 11

China Clay—
Bombay, 195 pkgs. 280 cks.
Boston, 248
Calcutta, 192 t.
Merriton, 30
Naples, 40
Oporto, 20
Philadephia, 55 300
Portland, M., 238
Roar'g Springs, 165
Sydney, 10
Windsor Mills, 217 10 c.

Coal Products
Aniline Colours
Barcelona, 13 kgs. 1 ck.
Boston, 3 5 cs.
Aniline Dye
Barcelona, 5 cks.
Aniline Oil
Barcelona, 30 brls.
Genoa, 10 dms.
Aniline Salt
Barcelona, 20 brls.
Genoa, 5 kgs. 12 cks.
Vera Cruz, 10
Carbolic Acid
Adelaide, 14 c. £10
Antwerp, 10 t. 275
Hamburg, 11 2 q. 47
Havre, 2 5
Rotterdam, 4 2 82
Yokohama, 6 4 410
Creosote Oil
Lisbon, 250 brls.
San Francisco, 1,5 0
Pitch
Boston, 35 cks.
Cape Town, 80 brls.
Cette, 490 t.
Lisbon, 30
Tar
Philadelphia, 100 brls.
Portland, Or, 300
Santander, 10

Copper Oxide—
Piræus, 10 t. 17 c. £806

Copper Sulphate—
Algiers, 49 t. 12 c. £1,101
Ancona, 11 2 q. 243
Bone, 6 1 141
Bordeaux, 267 10 6,338
Boston, 14 12
Bremen, 10 3 14
Brindisi, 9 18 3 241
Callao, 2 1
Catania, 4 18 1 119
Constantinople, 2 10 65
Coquimbo, 11 3 2 245
Genoa, 7 19 3 182
Gibraltar, 1 15 51
La Pallice, 4 12 2 109
Lisbon, 9 18 230
Nantes, 10 1 2 254
Oran, 2 1 41
Salonica, 3 1 3 73
Varna, 1 10 40
Venice, 19 18 480
Vigo, 14 18 1 360

Cream of Tartar—
Guayaquil, 1 c. £5

Disinfectants—
Algiers, 3 cs. 4dms. £10
Calcutta, 2 t. 5 c. 13
Rangoon, 20 kgs. 15

Glycerine—
Manila, 6 c. £46
Montreal, 1 t. 40
New York, 6 2 154

Iron Chromate—
Havre, 5 t. 12 c. 2 q. £73

Magnesia—
Barcelona, 50 cs.

Magnesium Chloride—
Bombay, 1 t. 10 c. £5

Manganese Sulphate—
New York, 4 t. 11 c. 1 q. £57

Manure—
Bordeaux, 24 t. 9 c. £240
Kingston, 10 70
Las Palmas, 9 52

Paint—
Bahia, 4 cs.
Belize, 38 kgs. 85 pks.
Bombay, 128
B Ayres, 44
Calcutta, 39
Callao, 25 cks.
Cienfuegos, 3
Curacao, 5
Curityba, 30
Gibraltar, 37
Hamburg, 1 6
Havana, 13 23
Lisbon, 8 dms.
Madras, 128
Malaga, 6
Malta, 25
Manaos, 32
Matanzas, 4 cs.
M. Video, 20
Parangua, 10
Parnahyba, 4
Ponce, 3
Rangoon, 11

Sagua la Grande, 6
Sherbro, 174
Sierra Leone, 272
St. Croix, 80 12
St Thomas, 100
Talcahuano, 10 35 brls.
Trieste, 20
Valparaiso, 170 cs.
Vera Cruz, { 10 / 10 cks.

Painters Colours—
Bahia, 62 pkgs.
Bombay, 1,705
Burutu, 85
Libau, 34 cks.
Manaos, 5
Newcastle, 960
St. Lucia, 25 kgs.

Paraffin Wax—
Bari, 20 bgs.
Hiogo, 20 cs.
Naples, 42
Singapore, 5 cks.
Smyrna, 10 bgs.
Tampico, 10
Venice, 10

Phosphorus (Amorph.)—
Hiogo, 25 cs. £253
Kingston, 1 11

Potash Salts—
Savanilla, 2 t. £224

Potassium Bichromate—
Salonica, 1 t. 4 c. £37

Potassium Carbonate—
Baltimore, 3 t. 18 c. £78
New York, 38 6 519
Valencia, 2 5 27

Potassium Chlorate—
Copenhagen, 5 t. 10 c. £165
Hamburg, 6 8
Hiogo, 15 462
Naples, 1 10 45
Shanghai, 5 10 181
San Francisco, 3 75

Salammoniac—
Alexandria, 2 t. £70
Genoa, 2 76
Para, 2 c. 2 q. 7
Trieste, 15 3 23

Salt—
Abonnema, 15 t.
Antwerp, 220
Apalachicola, 300
Benin, 18 19 c.
Brass 13
B. Ayres, 200
Calcutta, 2,000
Conakry, 122 4
Dubreka, 100
Gd. Lahou, 22 6
Kingston, Jam. 106 7
Lagos, 200
Lahou, 22 6
M Video, 12
N. Orleans, 200
New York, 40 2,200 sks.
Philadelphia, 55
Portland, Or., 65
Rouen, 150 bgs.
St. John, N.B., 75
Shanghai, 2 17
Sierra Leone, 200 8
Sherbro, 20 2
Vera Cruz, 17

Salt Cake—
Antwerp, 300 t. £251
Lisbon, 5 12 c. 12
Oporto, 5 6 12
San Francisco, 26 16 57

Saltpetre—
Pernambuco, 5 t. 14 c. 1 q. £120

Sheep Dip—
B. Ayres, 20 t. 4 c. £500
Portland, Me., 9 15
M. Video, { 8 18 1 q. 380 / 500 dms.
Melbourne, 500 150
Rangoon, 73 13
Calcutta, 200 4 cks. 36

Silicon Soda—
Bombay, 10 brls.

Soap—
Alexandria, 80 bxs
Algoa Bay, 500
Antwerp, 1,818 cs.
Beira, 150
Bombay, 77 1,547
Brass, 112
Burutu, 24
Calcutta, 65 250 bdls.
Cape Town, 523
Colombo, 139 2
Copenhagen, 30

Demerara, 1 940 5
E. London, 1,100 83 5
Gibraltar, 5 0
Havana, 3
Havre, 50
Hong Kong 710
Honolulu, 150
Iquitos, 550
Karachi, 525 2
Las Palmas, 120
Leghorn, 10
Madras, 10
Manaos, 800
Mossel Bay, 1,426
New York, 44
Old Calabar, 869
Opobo, 3,360
Oporto, 1
Ottawa, 900
Para, 201
Penang, 1,205
Pt. Natal, 100 1,600
Quittah, 50
Rangoon, 903 8
Rotterdam 30
St. John, N.B., 600
St. John's N'fd., 45
Salisbury, 25
Santos 1
Shanghai, 13,562
S. Leone, 50
Singapore, 3 26
St. John, N.B., 20
St. Johns, Nfld., 130
St. Kitts, 15
St. Lucia, 41
St. Thomas, 25
Surinam, 200
Teneriffe, 950
Tokio, 5
Toronto, 2,525
Trinidad, 400
Valparaiso, 2
Yokohama, 16

Soda Ash—
Amsterdam, 500 bgs.
Windsor Mills 320
Antwerp, 17 cks.
Baltimore, 2,264 100 trcs.
Bombay, 6 cks.
Boston, { 122 tcs. / 1,700 27 brls.
Calcutta, 100 kgs. 257
Copenhagen, 1,080 bgs.
Gothenburg, 500 46 cks.
Hamburg, 21
Hiogo, 160
Kingsville, 100
Kobe, 900
Leghorn, 100
Madras, 16
New York, 13 brls.
Oporto, 16
Philadelphia, 1, 20 57 tcs. 14
Piræus, 95 brls.
Rotterdam, 534
Samarang. 32
Smyrna, 100 60
Sourabaya, 100 10
Sydney, N.S.W. 48
Turin. 100
Vera Cruz, 25
Wallaceburg, 150

Soda Crystals—
Bombay, 100 kgs
Boston, 280
Constantinople, 160 brls.
Karachi. 20
M Video, 50 cks.
Nagasaki 20
Piræus, 20
Smyrna, 50
Sydney, N.S.W. 24
Valparaiso, 50 bgs.

Sodium Bicarbonate—
Bombay, 357 kgs.
Calcutta, 40
Colombo, 20
Genoa. 20
Hiogo. 600
Karachi. 1686 4
Marseilles, 69 dms.
M. Video 20
Newcastle, 100
Penang, 12 cks.
Pt. Natal, 50
Rangoon, 100
Rawal Pindi, 101
Rouen, 69 dms.
Stamboul, 85
Sydney, 300 140 bgs.

Sodium Hyposulphite—
Portland Or., 50 kgs.
S. Francisco, 150

Sodium Naphthionate—
New York, 6 cks.

Sodium Nitrate—
Kingston, Ja., 1 ck.

Sodium Prussiate—
Boston, 26 cs
Philadelphia, 9 cks.

Sodium Silicate—
Bilboa, 15

Sodium Sulphate—
B. Ayres, 150 bgs.

Stannous Chloride—
Kingston, 6 c. 1

Starch—
Calcutta, 6 cs
Lisbon, 2 cks.
Salonica, 50

Sulphur—
Paranagua, 11 c. 3
Sarpsborg, 402 t. 5
Boston, 200 5
Gothenburg, 75 2
St. John, N.F., 5
Portland, O., 25 1

Sulphuric Acid—
Pernambuco, 5 t

Superphosphates—
Barcelona, 60 t.
Venice, 39 9 c.
G. Canary, 6 1
Valencia, 150 5
L. Palmas, 53 10

Tannic Acid—
Portland, M. 10 c.

Tartaric Acid—
Rangoon, 1 cs.
V. Cruz. 3 c.

Varnish—
Bilbao, 2 cs.
Corfu, 1
Genoa, 2
Havana, 1
Melbourne, 2

White Lead—
Bahia, 30 cs.
Sydney, 2 cks.

Zinc Chloride—
Calcutta, 9 c.
Bombay, 3 t. 17

MANCHESTER

Week ending December 2

Ammonium Sulphate—
Valleyfield, 100 bgs.

Caustic Soda—
St. John, N.B., 50
Tunis, 15

Chemicals (*otherwise undes*
Antwerp, 8 cks. 12
Hamburg, 3 4
Mersyne, 50 brls.
Rotterdam. 10 3 cs. 5
St. John, N.B., 26 tcs.
Tunis, 16 brls.

Coal Products—
Aniline Colour
Germany, 1 ck.
Aniline Oil
Hamburg, 10
Carbolic Acid
Montreal, 12
Rouen, 5 cs. 174
Pitch
Cette, 1,443 t.
Chantenay, 708 8 c.
Santander, 945
Toluol
Germany, 24 cks.

Copperas—
Alexandria, 140 brls.
Bushire, 20
Mersyne, 40
Mohammerah, 60

Copper Sulphate—
Alexandria, 20 kgs.

Cottonseed Oil—
Beyrout, 6 brls.

Dyestuffs—
Extract
Stockholm, 37 cks.

Glue—
Bombay, 1 cs.
Germany, 21 cks.

Glycerine—
Stettin, 30

Linseed Oil—
Beyrout, 5 brls.
Tripoli, 2

Muriatic Acid—
Bombay, 5 cs.

Oxalic Acid—
Bushire, 2 cs.
Painters' Colours—
Tunis, 4 cks.
Paraffin Wax—
Hamburg, 6 cs.
Potassium Bichromate—
Bushire, 6 cs.
Red Lead—
Bombay, 14 kgs.
Salt—
Germany, 157 t.
St. John, N.B., 4,800 sks.
Soap—
Bombay, 3 cs.
Soda Ash—
Beyrout, 10 brls.
St. John, N.B., 79 bgs.
Sodium Bicarbonate—
St. John, N.B., 1,050 dms.
Sodium Naphthionate—
Germany, 18 cks.
Sulphur—
St. John, N.B., 1,611 bgs.
Tallow—
Stockholm, 2 cks.

HULL.

Week ending December 16th.

Ammonium Sulphate—
Antwerp, 127 bgs.
Marseilles, 500
Palermo, 142
Caustic Soda—
Abo, 5 cks. 14 dms.
Chemicals (*otherwise undescribed*)
Antwerp, 26 cs.
Bergen, 1 ck.
Bremen, 1
Christiania, 10 789 slbs.
Copenhagen, 25 pks.
Dunkirk, 83
Fiume, 4
Genoa, 3
Ghent, 25
Gothenburg, 749 slbs. 10 pks.
Hamburg, 22 147
Naples, 5
Odessa, 38
Reval, 22 bgs. 6 cks.
Rotterdam, 62
Stettin, 11
Coal Products—
Naphthalene
New York, 10 cks.
Pitch
Antwerp, 252 t. 1 c
Genoa, 50 cks.
Tar
Antwerp, 3 cks.
Bergen, 5
Copenhagen, 5
Danzig, 5
Dunkirk, 125 brls.
Harlingen, 50
Rotterdam, 15
Stockholm, 2
Cottonseed Oil—
Alexandria, 4 t. 8 c.
Amsterdam, 22
Antwerp, 61 13
Bremen, 5 3
Christiania, 8
Copenhagen, 10
Dunkirk, 59 16
Ghent, 25 1
Hamburg, 6 17
Marseilles, 494 7
Odessa, 10
Rotterdam, 49 9
Stettin, 20
Glue—
New York 40 cks.
Linseed Oil—
Alexandria, 5 t. 1 c.
Bremen, 8
Christiania, 2 13
Christiansand, 1 15
Christiansund, 1 1
Drontheim, 3 16
Hamburg, 1 15
Manure—
Venice, 891 bgs. 295 t.
Paint—
Stettin, 7 cks.
Painters' Colours—
Amsterdam, 50 pkgs.
Antwerp, 121 cks. 6 cs.
Bremen, 22 3 2 dms.
Christiania, 3
Copenhagen, 1
Drontheim, 20
Dunkirk, 7
Genoa, 10
Ghent, 10
Gothenburg, 5 4
Hamburg, 5 4
Harlingen, 1
Marseilles, 24
New York, 62 10 pks.
Reval, 6
Rotterdam. 20 dms.
Stettin, 5
Plumbago—
Bergen, 2 cks.
Soap—
Amsterdam, 50 cs.
Starch—
Odessa, 500 cs.
Tallow—
Abo, 23 cks.
Amsterdam, 28
Fiume, 106 brls.
Gothenburg, 10
Hamburg, 88
Helsingfors, 20
Turpentine—
Antwerp, 1 ck.
Varnish—
Christiania, 1 cs.
Genoa, 2

GLASGOW.

Week ending December 21st.

Acid—
Bombay, £1,600
Ammonium Carbonate—
Bergen, £20
Ammonium Sulphate—
Amsterdam, 30 t. 1 c. 2 q.
Baltimore, 101 19 1
Genoa, 40 10 2
Hamburg, 151 19
Malaga, 51 12 2
Penang, 41 8 1
Valencia, 471 14 3
Borax—
Toronto, £22
Castor Oil—
Adelaide, £44
Coal Products—
Aniline Dye
Calcutta. £21
Carbolic Acid
Melbourne, £20 17s.
Pitch
Antwerp, £335
Bombay, 68
Rotterdam, 7s.
Tar
Bombay, £77
Calcutta, 75
Christiania, 63
Pietermaritzburg, 21 13s.
Copperas—
Bombay, £80
Cream of Tartar—
Yokohama, £16 10s.
Crude Tar Acids—
Canada, £90
Dextrine—
Italy, £150
Melbourne, 47
Dyestuffs—
Extract
Ballarat, £65
Barcelona, 85
Melbourne, 38
U.S.A., 328
Sumach Extract
Barcelona, £85
Belgium, 60
Quebracho Extract
Belgium, £30
France, 80
Glue—
Rotterdam, £54
Guano—
Nantes, 5 t.
Gutta Percha—
Rotterdam, £41
Lead Nitrate—
Rotterdam. £20
Linseed Oil—
Adelaide, 4 t. 3 c.
Calcutta, 1 9 1 q.
Canada, 11 9 2
Hong Kong, 2 17 3
Melbourne, 4 10 1
Singapore, 1 5
Magnesium Sulphate—
Adelaide, £37
Melbourne, 30 14s.
St. Stephen, N.B., 25 10
Paint—
Adelaide, £76 19s.
B. Ayres, 13
Penang, 34
Painters' Colours—
Adelaide, £122
Calcutta, 206
Melbourne, 701
Pietermaritzburg, 30
Singapore, 77
U.S.A., 100
Paraffin Wax—
Barcelona, £103
Bordeaux, 163
Christiania, 2 t. 2 q.
Italy, £1,225
San Sebastian, 138
Spain, 285
Potassium Bichromate—
Antwerp, £144
Christiania, 45
Epinal, 151
Genoa, 202
Gothenburg, 290
Hiogo, 144
Melbourne, 145
Red Lead—
Calcutta, £115
Rosin Oil—
Cape Colony, £59
Sheep Dip—
Punta Arenas, £606
Soap—
Hong Kong, 15 c.
Singapore, 2 t. 3 2 q.
U.S.A., 1 1
Sodium Bichromate—
Bordeaux, 5 c. 3 q.
Genoa, 3 t. 3 1
Nantes, 15 4 3
Starch—
Barcelona, £76
Superphosphate—
Adelaide, 100 t.
Tallow—
Rotterdam, 1 t. 14 c.
Tar Oil—
Italy, £277
Turpentine—
Calcutta, £20
Singapore, 49
White Lead—
Adelaide, £25

TYNE.

Week ending December 16th.

Alkali—
Christiania, 1 t. 14 c.
Ammonium Carbonate—
Aarhuus, 1 t. 11 c. 3 q.
Antimony—
Antwerp, 1 t.
New York, 60
Antimony (Regulus)—
Rotterdam, 1 t.
Arsenic—
Venice, 1 t. 15 c. 3 q.
Barium Binoxide—
Antwerp, 10 t. 15 c. 2 q.
Rotterdam, 10 19 1
Barium Carbonate—
New York, 30 t. 5 c.
Hamburg, 143 10
Bleaching Powder—
Amsterdam, 9 t. 19 c.
Antwerp, 5 2
Bergen, 9
Christiania, 10 8
Hamburg, 54 2 3
New York, 60 1 2
Caustic Soda—
Aarhuus, 1 t. 9 c.
Amsterdam, 15 7 1 q.
Antwerp, 8 14
Barcelona, 161 2 1
Copenhagen, 1 9
Genoa, 72 5 3
Valencia, 10 3
Venice, 29 1
Coal Products—
Carbolic Acid
Nyborg, 12 c. 1 q.
Colours—
New York, 1 t. 10 c.
Ferro Manganese—
Antwerp, 41 t. 18 c. 3 q.
Litharge—
Copenhagen, 5 c. 3 q.
New York, 2
Lucigen Oil—
Christiania, 1 t. 5 c. 2 q.
Magnesia—
Antwerp, 18 c. 1 q.
Barcelona, 17 14 3
Hamburg, 3 1
Valencia, 2 1
Manganese—
Antwerp, 17 cks.
Manure—
Valencia, 364 t.
Orange Mineral—
New York, 1 t.
Paint—
Antwerp, 2 t. 6 c.
Christiania, 10
Hamburg, 2 7
New York, 2 q.
Painters' Colours—
Rotterdam, 4 c.
Phosphorus—
Valencia, 2 t. 12 c.
Plumbago—
Ergasteria, 1 t. 6 c. 3 q.
Red Lead—
Copenhagen, 3 t. 4 c. 1 q.
Genoa, 10 7 3
Hamburg, 10 1
New York, 1
Soap—
Bergen, 1 cs.
Soda—
Amsterdam, 1 t. 8 c. 2 q.
Rotterdam. 10
Sodium Hyposulphite—
New York, 30 t. 6 c. 2 q.
Sodium Sulphate—
Antwerp, 61 t. 9 c.

GOOLE.

Week ending December 13th.

Chemicals (*otherwise unaescribed*)
Amsterdam, 1 ck.
Rotterdam, 24
Coal Products (*otherwise undes.*)—
Amsterdam, 138 cks.
Antwerp, 8 2 cs. 1 dm.
Boulogne, 8
Hamburg, 10
Rotterdam, 57
Coal Products—
Creosote
Knysna, 1,650 cks.
Pitch
Antwerp, 636 t.
Dyestuffs (*otherwise undescribed*)
Ghent, 6 cks.
Rotterdam, 44
Manure—
Antwerp, 125 bgs.
Painters' Colours—
Boulogne, 4 cks. 6 pks.
Ghent, 6
Rotterdam, 12

GRIMSBY.

Week ending December 16th.

Caoutchouc—
Malmo, 1 ble.
Chemicals (*otherwise undescribed*)
Malmo, 5 cks.
Coal Products (*otherwise undes.*)—
Dieppe, 4 kgs. 106 cks.
Hamburg, 4 cs.
Coal Products—
Pitch
Rotterdam, 80 t. 10 c.
Colours—
Gothenburg, 1 cs.
Painters' Colours—
Antwerp, 7 cks. 3 pks.
Hamburg, 8 2 cs.
Rotterdam, 8

PRICES CURRENT.

WEDNESDAY, Dec. 27, 1899.

Prepared by Messrs. Higginbottom and Co., 116, Portland Street, Manchester.

The values stated are f.o.r. at maker's works, or at usual ports of shipment in U.K. The price in different localities may vary.

	£	s.	d.
Acids:			
Acetic, 25 % and 40 % per cwt.	7/-	&	9/3
,, Glacial		35/-	
Arsenic S.G. 2,000°	1	2	6
Fluoric per lb.	0	0	3¼
Muriatic (Tower Salts), 30° Tw. per bottle	0	0	9
,, (Cylinder), 30° Tw. ,,	0	3	0
Nitric 80° Tw. per lb.	0	0	1½
Nitrous ,,	0	0	1½
Oxalic nett ,,	0	0	3
Phosphoric, 1750° ,,	0	0	10¾
Picric ,,	0	1	2
Sulphuric (fuming 50 %) per ton	15	10	0
,, (monohydrate) ,,	5	10	0
,, (Pyrites, 168°) ,,	3	0	0
,, (,, 150°) ,,	1	5	0
,, (free from arsenic, 145°) ,,	1	7	6
Sulphurous (solution) S.G. 1025 ,,	3	0	0
Tannic (pure) per lb.	0	1	2½
Tartaric ,,	0	0	11¾
Arsenic, white powdered nett per ton	19	10	0
Alum, loose lump ,,	4	5	0
Alumina Sulphate (pure) ,,	3	17	6
Aluminoferric ,,	2	2	6
Aluminium (Ingot metal 98/99 ¼ %) nett ,,	148	0	0
Ammonia, Anhydrous per lb.	0	1	2
,, ·880 = 28° B. ,,	0	0	2¾
,, = 24° B. ,,	0	0	1¾
,, Carbonate nett ,,	0	0	3¾
,, Muriate per ton	24	0	0
,, ,, (sal-ammoniac) 1st & 2nd per cwt.	40/-	&	38/-
,, Nitrate per ton	32	10	0
,, Phosphate per lb.	0	0	5
,, Sulphate (grey) London per ton	11	1	3
,, ,, (grey) Hull ,,	11	0	0
Aniline Oil (pure) per lb.	0	0	4½
Aniline Salt ,,	0	0	4¼
Antimony per ton	39	15	0
,, (tartar emetic) per lb.	0	0	8
,, (golden sulphide) ,,	0	0	9
Barium Chloride per ton	7	0	0
,, Carbonate (native) ,,	3	15	0
,, Sulphate (native levigated) ,,	40/-	to	60/-
Bleaching Powder, 35 % nett ,,	6	0	0
,, Liquor, 7 % ,,	3	10	0
Bisulphide of Carbon ,,	13	15	0
Chromium Acetate (crystal) per lb.	0	0	6¼
Calcium Chloride per ton	2	10	0
China Clay (at Runcorn) in bulk ,,	17/-	to	25/-
Coal Tar Products and Dyes:—			
Alizarine (artificial) 20 % nett per lb.	0	0	6¾
Magenta ,,	0	3	9
Anthracene, 30% A, f.o.b. London per unit per cwt.	0	0	4
Benzol, 90's per gallon	0	0	8¼
,, 50/90 ,, ,,	0	0	10¼
Carbolic Acid (crude 60°) ,,	0	2	10
,, (crystallised 40°) per lb.	0	0	10½
,, (liquid 95/97%) per gallon	0	1	3
Creosote (ordinary) ,,	0	0	3¾
,, (filtered for Lucigen light) ,,	0	0	4
Crude Naphtha 30% @ 120° C. ,,	0	0	4½
Grease Oils, 22° Tw. per ton	3	0	0
Pitch, f.o.b. Liverpool or Garston ,,	1	12	0
Solvent Naphths, 90% at 160° per gallon	0	1	4
Copper per ton	70	0	0
,, Sulphate ,,	25	0	0
,, Oxide (copper scales) ,,	68	0	0
Glycerine (crude) 80% ,,	31	0	0
,, (distilled S.G. 1260°) ,,	51	10	0
Iodine nett, per oz.	0	7	7½
Iron Sulphate (copperas) per ton	1	5	0
,, Sulphide (antimony slag) ,,	2	0	0
Lead (sheet) ,,	18	0	0
,, Litharge Flake (ex ship) ,,	20	0	0
,, Acetate (white ,,) ,,	24	10	0
,, ,, (brown ,,) ,,	20	0	0
,, Carbonate (white lead) pure ,,	24	0	0
,, Nitrate ,,	26	0	0
Lime, Acetate (brown) (ex ship) per ton	6	5	0
,, ,, (grey) (ex ship) ,,	9	0	0
Magnesium (ribbon and wire) per oz.	0	2	3
,, Chloride (ex ship) per ton	3	0	0
,, Carbonate per cwt.	1	17	6
,, Calcined Magnesia per ton	13	10	0
,, Sulphate (Epsom Salts) ,,	3	5	0
Manganese, Sulphate ,,	14	5	0
,, Borate per cwt.	2	0	0
,, Ore, 70% per ton	3	10	0
Methylated Spirit, 61° O.P per gallon	0	2	0
Naphtha (Wood), Solvent ,,	0	2	10
,, ,, Miscible, 60° O.P. ,,	0	3	7
Oils:—			
Cotton-seed per ton	21	0	0
Linseed ,,	23	10	0
Stearine ,,	27	0	0
Phosphorus (Yellow) per lb.	0	1	11
,, (red) ,,	0	2	8
Potassium Bichromate nett ,,	0	0	4½
,, Carbonate, 90% (ex ship) per ton	19	10	0
,, Chlorate per lb.	0	0	3½
,, Cyanide, 98 % ,,	0	1	0
,, Hydrate (Caustic Potash) 90 % per ton	25	10	0
,, ,, ,, 75/80 % ,,	22	0	0
,, Potash Hydrate Liquid 50 % ,,	13	10	0
,, Nitrate (refined) ,,	21	5	0
,, Permanganate per cwt.	2	12	6
,, Prussiate Yellow per lb.	0	0	7½
,, Sulphate, 90 % (ex ship) per ton	9	15	0
,, Muriate, 80 % ,, ,,	9	0	0
Silver (metal) per oz.	0	2	3½
Sodium (metal) per lb.	0	2	6
,, Carb. (refined Soda-ash) 48 % nett per ton (f.o.r. w'ks.)	4	15	0
,, ,, (Caustic Soda-ash) 48 % ,, ,, (f.o.r. w'ks.)	4	5	0
,, ,, (Carb. Soda-ash) 48 % ,, ,, (f.o.r. w'ks.)	4	0	0
,, ,, (Alkali) 58 % (Bags) ,, ,, (f.o.r. w'ks.)	4	7	6
,, ,, (Soda Crystals) ,, ,, (f.o.r. w'ks.)	2	15	0
,, Acetate (ex-ship) ,,	14	0	0
,, Arseniate, 45 % ,,	13	10	0
,, Chlorate per lb.	0	0	3¼
,, Borate (Borax) nett per ton	15	10	0
,, Bichromate ,, per lb.	0	0	3¼
,, Hydrate (76 % Caustic Soda) (f.o.b.) nett per ton (10 ton lots)	9	15	0
,, ,, (74 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	10	0
,, ,, (70 % Caustic Soda) ,, ,, ,, (10 ton lots)	9	0	0
,, ,, (60 % Caustic Soda) ,, ,, ,, (10 ton lots)	8	0	0
,, ,, (pure liquor 90° Tw.) ,, ,, (10 ton lots)	4	10	0
,, ,, 77/78 % powdered (99 % hydrate) ,,	12	0	0
,, Bicarbonate (cwt. kegs) ,,	6	15	0
,, Hyposulphite ,,	6	5	0
,, Manganate, 25 % ,,	15	10	0
,, Nitrate (95 %) ex-ship Liverpool per cwt.	0	7	9
,, Nitrite, 98 % per ton	26	0	0
,, Phosphate ,,	10	10	0
,, Prussiate per lb.	0	0	5½
,, Silicate (glass) per ton	4	10	0
,, ,, (liquid, 100°Tw.) ,,	3	10	0
,, Stannate, 40 % per cwt.	3	10	0
,, Sulphate (Salt-cake) per ton	1	7	6
,, ,, (Glauber's Salts) ,,	1	10	0
,, Sulphide (crystals) ,,	6	10	0
,, Sulphite ,,	5	15	0
Strontium Hydrate, 100 % ,,	9	10	0
Sulphocyanide Ammonium, 95% per lb.	0	0	6
,, Barium, 95 % ,,	0	0	4¼
,, Potassium ,,	0	0	7
Sulphur (Flowers) per ton	7	5	0
,, (Roll Brimstone) ,,	6	2	6
,, Brimstone: Best quality ,,	4	12	6
Superphosphate of Lime (26 %) ,,	2	10	0
Tallow ,,	28	0	0
Tin Crystals per lb.	0	0	9½
,, English Ingots per ton	114	0	0
Zinc (Spelter) ,,	20	2	6
,, Chloride (solution, 100° Tw.) ,,	7	10	0
,, Sulphate, Crystal ,,	7	10	6

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PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

RE-ENGAGEMENT Wanted, as Manager of a Gunpowder Factory; thorough practical experience in the manufacture of Smokeless Powders.—Address, "Poudre," c/o Messrs. Street & Co., 30, Cornhill, London, E.C.

FOR SALE, 50 new painted closed-top Iron TANKS, 4 ft. cube, capacity 400 gallons, manhole in tops. — Apply, Thos. W. Ward, Fitzalan Chambers, Sheffield.

SHEEP Dips, Glue, Acids, Manure, and General Chemical Manufacturing.—FACTORY MANAGER, open for RE-ENGAGEMENT, temporary or permanent, thoroughly up-to-date in above lines.—Address, "K929," at Shelley's, 38, Gracechurch St., E.C.

WANTED, Superintendent, Bleach Plant abroad. Desire to make early engagement with expert acquainted with best practice and having knowledge of all forms of mechanical absorbers. State experience and compensation.—Address, "W.A.," *Chemical Trade Journal* Office, Manchester.

CHARCOAL or other cheap waste material WANTED, to act as a decolourizer in Sewage treatment.—Address, "Waste," *Chemical Trade Journal* Office, Manchester.

CHESHIRE SALT DISTRICTS.

BY ORDER OF THE SALT UNION, LIMITED.

VALUABLE SURPLUS PROPERTIES, including Sites for Works, Building Plots, Agricultural Land, Lands fronting Canal, Cottages, &c., situate in Winsford, Middlewich, Wheelock, Lostock Gralam, and Northwich, Cheshire, on the Salt Union form of lease, for 999 years, at a peppercorn rent.

TO BE SOLD BY AUCTION, by Mr. C. J. HUGHES, at the ANGEL HOTEL, NORTHWICH, on MONDAY, JULY 31st, 1899, at 4 o'clock in the afternoon, prompt.

Lots 1 to 7.—Cottages and Land at Ways Green and Station Road, Winsford.

Lots 8 to 13.—Building Land and Canal Wharfages at Webbs Lane, Middlewich.

Lot 14.—The Wheelock Iron and Salt Works Estate, situate at Wheelock, near Sandbach, Cheshire (subject to the restrictions as to user, set forth in the special conditions), together with the mines, minerals, and brine, brine shaft, with pumps, sand engine, timber built pan houses and store houses, two brick chimneys, weighing house and machine, office, store house on canal, dry boat dock, 14 cottages, also railway sidings, connected with the North Staffordshire Railway, Sandbach Branch. Gross annual rentals of the 14 cottages, £88. 16s. 8d. There are also two cottages let to Messrs Brunner, Mond & Co., Ltd., together with certain water rights, for a term of 50 years from 29th September, 1886, determinable by the lessee at the end of 20, 30, or 40 years of the term, at an annual rental of £60. This lease is included in the sale. The Trent and Mersey Canal runs through the property. The close proximity of the site to the North Staffordshire Collieries ensures a very low rate for fuel, and the carriage of goods and products to Liverpool by water is also correspondingly moderate. The total area is 15 acres, 1 rood, 24 perches

Lot 15.—5 cottages, coal yard, and land at Wharf Street, Wheelock.

Lot 16.—Close of land 1 acre, 1 rood, 33 perches adjoining the Trent and Mersey Canal, and the Cheshire Lines Railway at Lostock Gralam near Northwich.

Lot 17.—Part of Manor Farm Estate, Northwich, comprising land situate off Manchester Road and containing 19 acres, 2 roods or thereabouts. This land offers a most valuable site for works. It has a good elevation, is well drained, adjoins the Cheshire Lines Branch Railway, is close to Dunkirk Brine Pumping Station, and has an excellent fresh water supply. The Salt Union Ltd, will if desired, supply brine to the purchaser of this Lot at a fixed charge, subject to the restrictions as to user set forth in the special conditions

Lot 18.—Plot of land in Tabley Street, Northwich, with the workship and other buildings thereon.

All mines and minerals except Lot 14 are reserved by the Vendors, but they will undertake to supply brine for special purposes on the terms set forth in the conditions.

The brine and minerals under Lot 14 will be included in the sale subject to the restrictions as to user set forth in the conditions.

The leases and agreements referred to in the particulars can be seen at the office of the Solicitors named below any day.

Orders to view, and particulars, plans, and conditions of sale, may be obtained from the Salt Union, Ltd., Liverpool and Winsford; the Auctioneer, Central Offices, Northwich or

Messrs. TRAFFORD & COOK, Solicitors, Northwich.

Miscellaneous—Cont.

WORKS FOR SALE.—Capable of producing 150 tons weekly of Sulphuric Acid, also Muriatic and Nitric acids, with other chemicals in good demand. On rail and canal; cheap coal and salt.—Address, "Salt," *Chemical Trade Journal* Office, Manchester.

BONE ASH.—Quotations wanted for very good quality (must be white), in lots of 10 to 20 tons.—Reply, "Bone," *Chemical Trade Journal* Office, Manchester.

WANTED, Railway Travelling ACID TANK, second-hand, holding about 7 tons; must be in good condition.—Address, "Z.Y.," *Chemical Trade Journal* Office, Manchester.

SULPHURIC Acid, Ordinary and Refined Muriatic and Nitric Acids, Saltcake, Bleach, Caustic, etc.—A Position wanted as MANAGER in Works, with 20 years' experience in the manufacture of chemicals named; thoroughly experienced in handling process men and artisans; best references from reliable firms.—"A.B.," 14, Leamington Street, Park Street, Harpurhey, Manchester.

FOR SALE, four COPPER CASED STEAM PANS; jacketted, flanged tops, wrought iron cases outside; size, about 3ft. 2in. by 2ft. 2in. inside; sold cheap; several Weighing Machines, by Avery; three Vertical Wall Pumps, 1¾in. to 2½in. rams; one 4½in. ram Vertical Steam Pump; three 9ft. by 4ft. new Vertical Steam Boilers; one 20 ft. by 6 ft. Lancashire Boiler; two cast iron high pressure Jacketted Steam Pans, 24 in. wide, 2cin deep, nearly new; one 18 in. by 36 in. Inverted Engine and Galloway Boiler; two 5 ft. Ball Grinding Mills, with gearing and appliances; one Link Driving Belt, 110 ft. by 18 in. wide, sold at half price; several Rope and Belt Pulleys; two sets deep well Pumps, with all gearing and appliances, with 20 h.p. horizontal Engine, and 25 h.p. Cornish Steam Boiler (sold together or separate); one 6 by 12 and 12 by 24 high class horizontal Steam Engine, by Tangyes, with or without steam boilers; 12 by 24 massive Vertical Engine and Cornish Boiler; 15 by 30 Horizontal Engine; new Disintegrator (Carter's); three Tanks, 6ft. by 30in. by 30in.; large number of Pulleys; 25 h.p. Beam Engine, £40.—For full details, address, J. Light, Wolverhampton.

VATS FOR SALE.—We have Six English Oak Vats, size from 350 barrels to 450 barrels each; also two about 100 barrels each.—Particulars, Brightwells, Coopers and Dealers in Old Casks, Burton-on-Trent.

FOR SALE, quick delivery, three new Cylindrical ACID TANK TRUCKS, tank 15 ft. long by 4 ft. 1½ in. diameter. Also one TANK 15 ft. long by 3 ft. 2 in. diameter.—Apply, C. Roberts & Co., Ltd., Railway Wagon and General Works, Horbury Junction, near Wakefield.

ON SALE, Vertical Steam Pump, Cameron's type; ram, 3½ ins. diameter; cylinder, 6 in. diameter; 5 inch stroke.—T. and R. Lees, Engineers, Hollinwood, near Manchester.

WOODEN VESSELS of every description, New or Second-hand; all shapes, dimensions, and capacities. We have on hand the largest stock in England, and firms requiring anything in this direction are kindly invited to write for particulars, etc., to Henry Roberts & Co., Vat and Back Makers, Bancroft Road, Mile End, London, E.

A large quantity of SECOND-HAND BREWER'S HOGSHEADS, BARRELS, KILDERKINS, FIRKINS, and PINS always in stock.—Apply for prices, JOHN GROUT & Co., Ltd., Back and Vat Makers and Coopers, Burton-on-Trent.

FOR SALE, large number of good Second-hand and New Wrought and Cast-Iron and Wood Tanks. All shapes and all sizes. Lists and prices on application. Enquiries solicited. Tanks of all kinds bought.—Apply, Thos. W. Ward, Fitzalan Chambers, Sheffield.

DYEING AND FINISHING WORKS.

TO BE LET, ASQUITH BOTTOM DYEWORKS situate at Sowerby Bridge, near Halifax, fitted up with all modern requisites for carrying on an extensive dyeing and finishing business, including velvets and velveteens. There is an unfailing supply of pure water with every convenience for a large business The premises are admirably roaded, and situate at a short distance from the Sowerby Bridge Railway Station. The rates are low. Such an opportunity rarely occurs, as a good tenant would be very liberally dealt with.—Apply to

Messrs. INGRAM AND HUNTRISS,
Hopwood Hall,
Halifax.

J. STIFF & SONS,
MANUFACTURERS OF
CHEMICAL APPARATUS
IN VITRIFIED STONEWARE.
ACID PANS, ACID PIPES & CONNECTIONS, RECEIVERS, CONDENSING WORMS, RETORTS, COCKS, JARS, BOTTLES & INSULATORS, BATTERY JARS, POROUS CELLS, &c., &c.
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MANGANESE
Up to 95 °/₀.
FLUOR SPAR,
Finest 98/99 per cent. quality.
EDUARD DIEMAR, Elgersburg, Germany.

MANGANESE,
Up to 95°/₀
FLUOR SPAR, finest 98/99 per ce
white quality.
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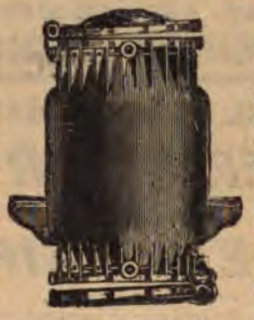
FULLER'S
BONE STEAMER.



Softens the Bones without extracting any of the Nitrogenous Substance.
Extraction of the Grease within an hour.

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GRINDING MACHINERY
FOR EVERY DESCRIPTION OF MATERIAL.
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MANGANES
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ALBUMENS, Pastes, Arabic Sol
Vegetable and Animal Size,
GLUES, PREPARED PITHS, Pr
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Greases, Manure Materials,

W. KING, Benson St., LIVERP

MANURE & CEMENT PLANT
Grinding and Crushing Machinery.
VICKERS' MIXERS.
PRATCHITT BROTHERS, Carlisle.

BRYAN CORCORAN,

MILLSTONE BUILI
WIRE WEAVER, MACHINE MANUF
AND GENERAL MILL FURNIS
Sole Maker of MILBURN
Patent Conoidal Stone Grindi
Especially suitable for
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Corn Exchange
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Liverpool: Exchange Chambers.
Glasgow: West Campbell-st.
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SHERDLEY GLASSWORKS, ST. HELENS.

...OULTON & CO., LTD., LAMBETH, LONDON,

...FACTURERS OF
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...EMICAL
...ARATUS
OF
...DESCRIPTION.

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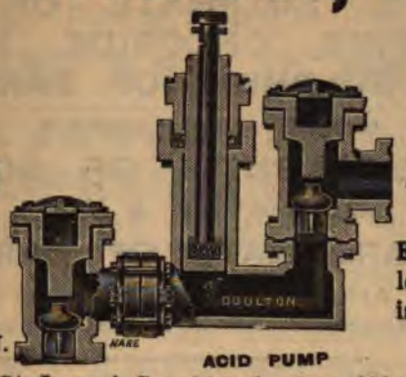

ACID PUMP

IMPROVED STONEWARE ACID PUMPS.

Each Pump prior to leaving the Factory is put into actual work and tested.

...YROOMS: St. James's Sq., Manchester; 100, Soho St., Liverpool.
...ranville St., Birmingham; 38 and 40, Bothwell St., Glasgow;
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SOLE MANUFACTURERS OF

...ULPHALUMINE

(THE PUREST BRAND OF SULPHATE OF ALUMINA).

CRYSTAL ALUM (LUMP AND GROUND).

...OLE MANUFACTURERS OF THE WELL-KNOWN ALUMINOFERRIC.

GLASS RETORTS FOR CONCENTRATING ACIDS.

WEBB & CO.,

PENDLETON,

MANCHESTER.

Telegraphic Address, "Retorts, Manchester."

For Ordinary or Continuous Process.

Estimates given for the Continuous Process fitted up complete.

...Helens.

TELEPHONE: No. 20, St. Helens.

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W. NEILL & SON.

SPECIALITIES:

High or Low Speed. ...ENGINES. DRIVING ENGS.

All high efficiency. GRINDING ML^s.

For all purposes. FILTER PRES^ES.

Castings. Burner Fronts, etc.

Vertical and Horizontal PUMPS of every description, with Improved Valves.

BLOWING EN^GS.

AIR COMPRES^RS.

GLYCERINE PLANTS.

St. Helens Junc., Lancs.

...OAP ...ACHINERY.

Tanks and

Tenders.

BOROUGH OF HEYWOOD.

GAS DEPARTMENT.

THE Gas Committee invite Tenders for the purchase of about 50 tons of SPENT OXIDE OF IRON.

Specification and Form of Tender and Sample may be obtained upon application to Mr. W. Whatmough, Gas Manager.

Sealed Tenders, endorsed "Spent Oxide," to be sent to me not later than Tuesday, August 15th, 1899.

By Order,

Municipal Buildings, Heywood. July 26th, 1899.

J. H. BALDWICK, Town Clerk.

Miscellaneous.

PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

WANTED, Situation as Works Chemist or Under Manager. Advertiser is fully experienced in the Manufacture of Sulphuric and Hydrochloric Acids, Alkali, Bleaching Powder Sulphur, and Brewers' Chemicals, etc.—Address, "Chemicals," *Chemical Trade Journal* Office, Manchester.

GENTLEMAN requires Appointment in Chemical Works as MANAGER or Chemical Engineer, 12 years' practical experience in manufacturing Chemicals—Sulphuric, Nitric and Hydrochloric Acids, Copper Sulphate, Lead Salts, Nickel and Cobalt salts etc. Analytical Chemist and Chemical Engineer; good draughtsman; extensive experience in the erection and designing of plant.—Address, "Hydrochloric," *Chemical Trade Journal* Office, Manchester.

TWO 4½ by 5 inch new COMPRESSORS, belt driven; one 6 by 12 inch ditto, belt driven; one 4½ inch ram Cameron Steam Pump; one 2½ inch ditto; several Engines, Boilers, Tools, and Tanks. —J. Light, Wolverhampton.

FOR SALE, Fletcher's ANEMOMETER, for estimating draught and speed of chimneys; only used a few times; cost £3. 3s., will accept £1. 10s.—Apply, "Chimney," *Chemical Trade Journal* Office, Manchester.

AMMONIA STILL WANTED; small size, second hand.—Address, Brotherton and Co., Ammonia Distillers, Leeds.

SHEEP DIP.—Wanted, a formulæ for and complete instructions how to manufacture an Arsenical Sulphur, Powder, or Paste Sheep Dip soluble in cold water.—Address, "Dip," *Chemical Trade Journal* Office, Manchester.

WANTED, a Chemical or Electrical ENGINEER, possessing executive ability, familiarity with electrolysis, and experience in erecting caustic soda and bleaching powder plant. Salary small till merit is proven. Applicant should give full account of himself in his first letter.—Box 5, Station M, Boston, Mass., U.S.A.

WANTED, a Copy of the Atlas Chemical Co.'s Recipes, second-hand. — State lowest price, "Atlas," *Chemical Trade Journal* Office, Manchester.

FOR SALE, CHEMICAL WORKS now being carried on in the Midlands, as a going concern, with connection. Complete plant for making Sulphuric Acid, Brewer's Chemicals, etc. — Apply, "Liquidator," 114, Station Street, Burton-on-Trent.

ADVERTISER (18), desires SITUATION in Laboratory of Works engaged in manufacture of important Chemicals; 2½ years' practical experience; small salary; excellent reference.—Address, A. E. Holley, Fairstowe, Calne, Wilts.

CHEMIST (19), requires SITUATION; three years' works experience in Vitriol, Bleach, Manures, Oils, Feeding Stuffs, &c. Excellent references; would go abroad; moderate salary.—Address, "Bleach," *Chemical Trade Journal* Office, Manchester.

Miscellaneous—Cont.

FOR SALE, Pair Horizontal Blowing ENGINES, 22in. cylinders, in splendid condition; 1 Vertical ditto. 22in. cylinder, by R. Daglish & Co.; other smaller Engines, Fire Engine, Pumps, etc; also a great variety of Wood Vats and other Chemical Plant.—Further particulars on application to Jonathan Chee-eman, 77, Rothbury Terrace, Heaton, Newcastle-on-Tyne

WORKS FOR SALE, NEAR NORTHWICH
(Cheshire Salt District).

TO BE SOLD by Private Treaty, as a going concern, well-appointed CHEMICAL WORKS. Erected within the past 10 years. The plant is of modern and substantial description; in excellent condition, and is adapted for the manufacture of Vitriol, Muriatic Acid, Nitric Acid, and Saltcake, with an output of Bleaching Powder to the extent of 100 tons per week, and Caustic Soda 80 tons per week.

The land is about 10 acres in extent, freehold, and there are railway sidings and connections throughout the works; also a commodious wharf on the Trent and Mersey Canal; cheap and ready access to Liverpool, Manchester, and all other Mersey shipping ports. Options are held for the purchase of adjoining land for any required extensions. Excellent water supply, and in central situation for supplies of coal, lime, salt, and minerals.—"Lime," *Chemical Trade Journal* Office, Manchester.

VATS FOR SALE.—We have Six English Oak Vats, size from 350 barrels to 450 barrels each; also two about 100 barrels each.—Particulars, Brightwells, Coopers and Dealers in Old Casks, Burton-on-Trent

FOR SALE, quick delivery, three new Cylindrical ACID TANK TRUCKS, tank 15 ft. long by 4 ft. 1½ in. diameter. Also one TANK 15 ft. long by 3 ft. 2 in. diameter.—Apply, C. Roberts & Co., Ltd., Railway Wagon and General Works, Horbury Junction, near Wakefield.

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A large quantity of SECOND-HAND BREWER'S HOGSHEADS, BARRELS, KILDERKINS, FIRKINS, and PINS always in stock.—Apply for prices, JOHN GROUT & Co., Ltd., Back and Vat Makers and Coopers, Burton-on-Trent.

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TO BE LET, ASQUITH BOTTOM DYEWORKS situate at Sowerby Bridge, near Halifax, fitted up with all modern requisites for carrying on an extensive dyeing and finishing business, including velvets and velveteens. There is an unfailing supply of pure water with every convenience for a large business. The premises are admirably roaded, and situate at a short distance from the Sowerby Bridge Railway Station. The rates are low. Such an opportunity rarely occurs, as a good tenant would be very liberally dealt with.—Apply to
Messrs. INGRAM AND HUNTRISS,
Hopwood Hall,
Halifax.

SULPHURIC ACID for SALE—R.O.V., D.O.V., and B.O.V., made from Sulphur—Enquiries solicited.—John Nicholson & Sons, Limited, Leeds.

SULPHIDE OF IRON for Sale, very good quality. Inquiries solicited.—John Nicholson and Sons, Limited, Chemical Works, Hunslet, Leeds.

LIQUID AMMONIA, all strengths.

BLAYDON MANURE AND ALKALI COMP.'S
PURE WHITE SULPHATE OF ALUMIN
BLANC FIXE, CHLORIDE, NITRATE,
AND SULPHIDE OF BARIUM.
UNITED ALKALI COMP.'S
HYPO-SULPHITE OF SODA,
WALTHER FELD & CO.'S
PURE PRECIP. CARBONATE OF BARYTES 96/9
Also Hydrate and Anhydrous Alumina, Chloride and Carbonate Alumina, Aluminate of Soda, Hydrate of Barium, &c.
Agents: JULIUS HULSEN & CO., NEWCASTLE-ON-TYN

36¾"
McNEIL'S
PATENT UNBREAKABLE
STEEL LADLES
These Ladles are manufactured by a patented process, each from a single steel plate without weld or rivet. They are extremely light, being at the same time the strongest and most durable in the market. Ladles to contain 56lb. of metal only weigh about 7lb. each. They are made of all capacities from 30lb. to 90 cwt., with or without lips; also mounted or unmounted. They are also suitable for chemical and metallurgical processes. List of sections and prices on application to
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ALBUMENS, Pastes, Arabic Sol
Vegetable and Animal Size, G
GLUES, PREPARED PITHS, Pr
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Greases, Manure Materials, &

W. KING, Benson St., LIVERP

GLUE
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Also Gelatine, Ground Glues, & Size
FOR ALL TRADES.
SAMPLES & PRICES ON APPLICATION.
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Especially suitable for
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WALKER BROS.,

ENGINEERS, PAGEFIELD IRONWORKS,

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WALKERS' PATENT

AIR COMPRESSING ENGINES.

GAS COMPRESSING ENGINES.

150,000 I.H.P. ALREADY AT WORK.

WALKERS' PATENT

EXHAUST AND BLAST FANS.

PETER SPENCE & SONS,

Manchester Alum Works, Manchester; and Goole Alum Works, Goole.

SOLE MANUFACTURERS OF

SULPHALUMINE

(THE PUREST BRAND OF SULPHATE OF ALUMINA).

CRYSTAL ALUM (LUMP AND GROUND).

ALSO SOLE MANUFACTURERS OF THE WELL-KNOWN **ALUMINOFERRIC.**

THE "ARCHIMEDEAN"

STERILIZER . . .

AND

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The Illustration represents an improved type of Machine adapted for mixtures in the manufacture of **Emulsions, &c.,** also for **Milk Sterilizing,** as recommended by the Medical Profession,—especially for Infants and Invalids.

The Machine is fitted with our patent Stirring Apparatus to work by hand. All inside parts being coated with Pure Tin. Underneath the pan is fitted a "Bunsen" Gas Generator for heating

For Prices and Particulars apply to

THE ARCHIMEDEAN CO.,

69, LEAM TERRACE EAST,

LEAMINGTON, Warwickshire.

SPECIALITIES:—

SODA ASH 58% POTASHES SALTCAKE BLEACH LITHIA SALTS BORAX MERCURIALS SUL. COPPER PRUSSIATES CYANIDES METALS MINERALS BRIMSTONE SULPHUR

Phosphoric Acid Acetates Oxalic Acid Tartaric Acid Salicylic Acid Carbolic Acid Camphor Stearine Glycerine OLEINE

Castor Oil Olive Oil Essent. Oils Glucose Grape Sugar Cane Syrup Treacle Nitrate of Silver (Pure)

Amidol, Metol, Glycin, Thiocarbamid and other Photographicals, Lumieres, Dry Plates, &c., &c.

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FUERST BROS.,

LONDON: 17, Philpot Lane, E.C.

HEADQUARTERS FOR ALL HEAVY OR FINE CHEMICALS,

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Drysalteries and Drugs,

Also OILS and PRODUCE.

SAMPLES AND PRICES ON APPLICATION.

CORRESPONDENCE SOLICITED.

Tenders.

BOROUGH OF HEYWOOD.

GAS DEPARTMENT.

THE Gas Committee invite Tenders for the purchase of about 50 tons of SPENT OXIDE OF IRON.

Specification and Form of Tender and Sample may be obtained upon application to Mr. W. Whatmough, Gas Manager.

Sealed Tenders, endorsed "Spent Oxide," to be sent to me not later than Tuesday, August 15th, 1899.

By Order,

Municipal Buildings, Heywood. July 26th, 1899.

J. H. BALDWICK, Town Clerk.

NORTHAMPTON GAS LIGHT CO.

TENDERS FOR TAR.

THE Directors are prepared to receive TENDERS for the purchase and removal of the surplus TAR produced at their Works, for a period of one or two years, from October 1st next.

The quantity produced is about 3,000 tons per annum.

Further particulars may be had on application.

The Directors do not bind themselves to accept any tender.

Tenders, marked "Tender for Tar," to be delivered at the Company's Office, on or before Tuesday, August 25th next.

JOHN EUNSON, Engineer

Gas Works, Northampton, August 9th, 1899.

Miscellaneous.

PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers, B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

WANTED, SITUATION as Under-Manager, Chemist, or Foreman; good experience in Copper Works, &c., the Manufacture of B.O.V. or R.O.V. Saltcake, Bleaching Powder, &c.—Apply, "X 30," *Chemical Trade Journal* Office, Manchester.

WROUGHT-IRON Steam Jacketted PAN, with Mixing Gear Wanted, about 250 gallons, about 30lbs. pressure; also 3-roll Paint Grinder, output 4 to 6 cwt. per hour.—State price and particulars to J. Lyte, 3, Burton Road, Walton, Liverpool.

ANALYST.—Advertiser wants Post as Assistant in Analyst's or Works Laboratory; Graduate in Chemistry and Physics, careful training in former; excellent testimonials.—Address, "F.," *Chemical Trade Journal* Office, Manchester.

WANTED, back vols. or sets of "Chemical News," Chemical Soc. Journal," "Nature," "Knowledge," "Philosophical Magazine," Scientific Journals and Periodicals, Natural History Works, &c.—HALL, Chapel Place Tunbridge Wells.

ADVERTISER (18), desires SITUATION in Laboratory of Works engaged in manufacture of important Chemicals; 2½ years' practical experience; small salary; excellent reference.—Address, A. E. Holley, Fairstowe, Calne, Wilts.

WANTED, to Purchase, a Second-hand GLYCERINE PLANT, complete and in good working order.—State maker's name price, and give full particulars to "Glycerine," *Chemical Trade Journal* Office, Manchester.

WANTED, Capital (about £3,000.) Limited Company if desired, to construct Chemical and Soap Works. Important Specialities for Textile Trades, &c. Advertiser (analytical chemist) has good connection; previous profits, 15 per cent. nett.—"Profit," *Chemical Trade Journal* Office, Manchester.

PRACTICAL and Chemical Engineer seeks ENGAGEMENT, home or abroad; thorough knowledge of the manufacture of Sulphuric Acid, and the various kinds of manures, etc., the erection and working of plant, also laboratory work connected with same.—Apply, "F.W.B.," 46, Wyatt Road, Forest Gate, London, E.

Miscellaneous—Cont.

WANTED, Situation as Works Chemist or Under Manager. Advertiser is fully experienced in the Manufacture of Sulphuric and Hydrochloric Acids, Alkali, Bleaching Powder Sulphur, and Brewers' Chemicals, etc.—Address, "Chemicals," *Chemical Trade Journal* Office, Manchester.

TWO 4½ by 5 inch new COMPRESSORS, belt driven; one 6 by 12 inch ditto, belt driven; one 4½ inch ram Cameron Steam Pump; one 2½ inch ditto; several Engines, Boilers, Tools, and Tanks.—J. Light, Wolverhampton.

AMMONIA STILL WANTED; small size, second hand.—Address, Brotherton and Co., Ammonia Distillers, Leeds.

SHEEP DIP.—Wanted, a formulæ for and complete instructions how to manufacture an Arsenical Sulphur, Powder, or Paste Sheep Dip soluble in cold water.—Address, "Dip," *Chemical Trade Journal* Office, Manchester.

WANTED, a Chemical or Electrical ENGINEER, possessing executive ability, familiarity with electrolysis, and experience in erecting caustic soda and bleaching powder plant. Salary small till merit is proven. Applicant should give full account of himself in his first letter.—Box 5, Station M, Boston, Mass., U.S.A.

CHEMIST (19), requires SITUATION; three years' works experience in Vitriol, Bleach, Manures, Oils, Feeding Stuffs, &c. Excellent references; would go abroad; moderate salary.—Address, "Bleach," *Chemical Trade Journal* Office, Manchester.

FOR SALE, Pair Horizontal Blowing ENGINES, 22in. cylinders, in splendid condition; 1 Vertical ditto 20in. cylinder, by R. Daglish & Co.; other smaller Engines, Fire Engine, Pumps, etc; also a great variety of Wood Vats and other Chemical Plant.—Further particulars on application to Jonathan Cheeseman, 77, Rothbury Terrace, Heaton, Newcastle-on-Tyne.

WORKS FOR SALE, NEAR NORTHWICH
(Cheshire Salt District).

TO BE SOLD by Private Treaty, as a going concern, well-appointed CHEMICAL WORKS Erected within the past 10 years. The plant is of modern and substantial description, in excellent condition, and is adapted for the manufacture of Vitriol Muriatic Acid, Nitric Acid, and Saltcake, with an output of Bleaching Powder to the extent of 100 tons per week, and Caustic Soda 80 tons per week.

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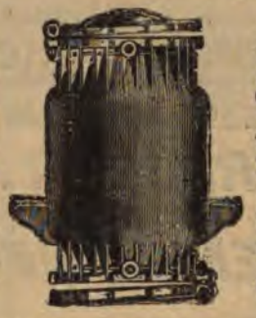
A large quantity of SECOND-HAND *BREWER'S HOGSHEADS, BARRELS, KILDERKINS, FIRKINS, and PINS always in stock.—Apply for prices, JOHN GROUT & Co., Ltd., Back and Vat*

J. STIFF & SONS,
MANUFACTURERS OF
CHEMICAL APPARATUS
IN VITRIFIED STONEWARE.
ACID PANS, ACID PIPES & CONNECTIONS, RECEIVERS, CONDENSING WORMS, RETORTS, COCKS, JARS, BOTTLES & INSULATORS, BATTERY JARS, POROUS CELLS, &c., &c.
LAMBETH, LONDON, S.E.

MANGANESE
Up to 95 °/₀.
FLUOR SPAR,
Finest 98/99 per cent. quality.
EDUARD DIEMAR, Elgersburg, Germany.

MANGANESE,
Up to 95°/₀
FLUOR SPAR, finest 98/99 per cent white quality.
WILHELM MINNER, Arnstadt, Germany.

FULLER'S
BONE STEAMER.
Softens the Bones without extracting any of the Nitrogenous Substance.



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GRINDING MACHINERY
FOR EVERY DESCRIPTION OF MATERIAL.
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MANGANESE
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FLUOR SPAR
of all kinds supplied by
CHR. GOTTL. FOERSTER, Ilmenau, Germany.

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Glue, Gelatine, & Size Manufacturers.
SUTTON-IN-ASHFIELD, NOTTS.
(Late BINDLEY & SON, Ltd., SMETHWICK.)

ALBUMENS, Pastes, Arabic Solution Vegetable and Animal Size, Gums, GLUES, PREPARED PITHS, Precipitated Bone Phosphate, Neatsfoot Oil, Greases, Manure Materials, &c.
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Grinding and Crushing Machinery.
VICKERS' MIXERS.
PRATCHITT BROTHERS, Carlisle.

BRYAN CORCORAN, LTD.
MILLSTONE BUILDER,
WIRE WEAVER, MACHINE MANUFACTURER AND GENERAL MILL FURNISHER.
Sole Maker of MILBURN'S Patent Conoidal Stone Grinding Mills.
Especially suitable for certain materials, Wet or Dry.

Works and Warehouses:
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31, MARK LANE, LONDON.

CANNINGTON, SHAW & CO., LIMITED,
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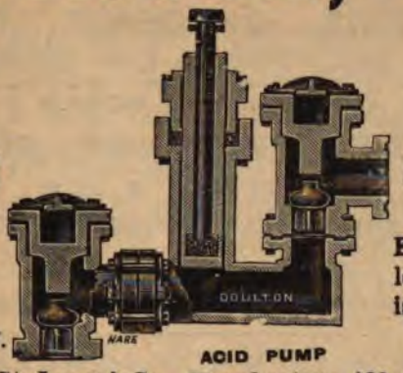
SHEPLEY GLASSWORKS ST. HELENS
Liverpool: Exchange Chambers. Glasgow: West Campbell-st.
Manchester: Oldham Road. London: Worship Street, E.C.

OULTON & CO., LTD., LAMBETH, LONDON,

MANUFACTURERS OF

TONEWARE CHEMICAL PPARATUS OF ERY DESCRIPTION.

PRICE LISTS APPLICATION.



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IMPROVED STONEWARE ACID PUMPS.

Each Pump prior to leaving the Factory is put into actual work and tested.

OWROOMS: St. James's Sq., Manchester; 100, Soho St., Liverpool. Granville St., Birmingham; 38 and 40, Bothwell St., Glasgow; 6, Rue de Paradis, Paris.

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(THE PUREST BRAND OF SULPHATE OF ALUMINA).

CRYSTAL ALUM (LUMP AND GROUND),

SO SOLE MANUFACTURERS OF THE WELL-KNOWN ALUMINOFERRIC.

NURE & CEMENT PLANT

Grinding and Crushing Machinery.

CKERS' MIXERS.

ATCHITT BROTHERS, Carlisle.

MANGANESE AND FLUOR SPAR

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MANGANESE

Up to 95 %.

LUOR SPAR,

Finest 98/99 per cent. quality.

RD DIEMAR, Elgersburg, Germany.

MANGANESE,

Up to 95%

FLUOR SPAR, finest 98/99 per cent white quality.

WILHELM MINNER, Arnstadt, Germany.

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TELEPHONE: No. 20, St. Helens.

CHEMICAL PLANT.

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SPECIALITIES:

WALL ENGINES. High or Low Speed.

DRIVING ENGS.

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FILTER PRESSES. All high efficiency.

Castings. Burner Fronts, etc.

BLOWING ENGS. PUMPS AIR COMPRESSRS. Vertical and Horizontal of every description, with Improved Valves.

GLYCERINE PLANTS.

SOAP MACHINERY.

St. Helens Junc., Lancs.

Metal d Work.

Tanks and Wrot. Ironwork

Tenders.

COUNTY BOROUGH OF SALFORD.

GAS DEPARTMENT.

SPENT OXIDE.

THE Gas Committee invite TENDERS for the purchase of about 100 tons of SPENT OXIDE.

Full particulars may be obtained on application to the Gas Engineer, Gas Offices, Bloom Street, Salford.

Sealed tenders, endorsed "Spent Oxide," addressed to the Chairman of the Gas Committee, Town Hall, Salford, to be delivered to me not later than 3 p.m. on Thursday, August 24th, 1899.

The Committee do not bind themselves to accept the lowest or any tender.

L. C. EVANS,
Town Clerk,
pro tem.

Town Hall, Salford.
14th August, 1899.

NORTHAMPTON GAS LIGHT CO.

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JOHN EUNSON,
Engineer.

Gas Works, Northampton,
August 9th, 1899.

Miscellaneous.

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PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

ESTIMATE Wanted for Ammonia Soda Ash Plant to produce 50 tons and one also 100 tons per week respectively. Particulars to Job Day, Spa Soap and Chemical Works, Leeds.

PERSULPHATE OF IRON for Sale very cheap. Suitable for extracting cyanides and precipitating sewage, and similar purposes. Apply, Sadler and Co., Middlesbrough.

WANTED, Two or Three TANK WAGONS of 2,200 gallons capacity. Particulars and price to Summers and Kollberg, 166, Buchanan Street, Glasgow.

UNIVERSITY COLLEGE, BRISTOL.

CHEMICAL DEPARTMENT.

Professor—SYDNEY YOUNG, D.Sc., F.R.S.
Lecturer—FRANCIS E. FRANCIS, B.Sc., Ph.D.
Demonstrator—D. H. JACKSON, M.A., B.Sc., Ph.D.

The SESSION 1899-1900 begins on October 3rd. Lectures on Inorganic, Organic, and Advanced Chemistry will be delivered during the Session. The Laboratories are fitted with the most recent improvements for the study of Practical Chemistry in all its branches. In the Evening the Laboratory is opened, and lectures on Inorganic Chemistry, at reduced fees, are delivered. Several Scholarships are tenable at the College. CALENDAR, containing full information, price 1s. (by post, 1s. 4d.). For prospectus and further particulars, apply to

JAMES RAFTER, Secretary.

WANTED back vols. or sets of "Chemical News," Chemical Soc. Journal," "Nature," "Knowledge," "Philosophical Magazine," Scientific Journals and Periodicals, Natural History Works, &c.—HALL, Chapel Place Tunbridge Wells.

EXPERIENCED Technical Chemist with private Laboratory, makes ANALYSES and conducts RESEARCH WORK on lowest terms.—Address, J. Franks, 259, Old Chester-road, Tranmere, Birkenhead.

Miscellaneous—Cont.

PRACTICAL and Chemical Engineer seeks ENGAGEMENT, home or abroad; thorough knowledge of the manufacture of Sulphuric Acid, and the various kinds of manures, etc., the erection and working of plant, also laboratory work connected with same.—Apply, "F.W.B.," 46, Wyatt Road, Forest Gate, London, E.

ANALYST Shortly Disengaged, with Practical Sanitary and Electrical experience, desires post in Laboratory or Works. Two years assistant to leading Public Analyst. A.I.C., college trained; energetic; highest references; or would Travel for Chemical Firm. Address, "Practical," *Chemical Trade Journal* Office, Manchester.

WANTED, SITUATION as Under-Manager, Chemist, or Foreman; good experience in Copper Works, &c., the Manufacture of B.O.V. or R.O.V. Saltcake, Bleaching Powder, &c.—Apply, "X 30," *Chemical Trade Journal* Office, Manchester.

WROUGHT-IRON Steam Jacketted PAN, with Mixing Gear Wanted, about 250 gallons, about 30lbs. pressure; also 3-roll Paint Grinder, output 4 to 6 cwt. per hour.—State price and particulars to J. Lyte, 3, Burton Road, Walton, Liverpool.

ANALYST.—Advertiser wants Post as Assistant in Analyst's or Works Laboratory; Graduate in Chemistry and Physics, careful training in former; excellent testimonials.—Address, "F.," *Chemical Trade Journal* Office, Manchester.

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BLAYDON MANURE AND ALKALI COMP.'S

PURE WHITE SULPHATE OF ALUMINA, BLANC FIXE, CHLORIDE, NITRATE, AND SULPHIDE OF BARIUM.

UNITED ALKALI COMP.'S

HYPO-SULPHITE OF SODA,

WALTHER FELD & CO.'S

PURE PRECIP. CARBONATE OF BARYTES 96/98%

Also Hydrate and Anhydrous Alumina, Chloride and Carbonate of Alumina, Aluminate of Soda, Hydrate of Barium, &c.

Agents: JULIUS HULSEN & CO., NEWCASTLE-ON-TYNE.

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Fine, Scotch, Town, Medal,
AND OTHER GLUES.
GELATINE, SIZE, GREASE & MANURE.

The GROVE CHEMICAL CO., Ltd.,
Crown Works, Appley Bridge, Wigan, Lancs.

CHEMICALS, Pure and Commercial,
For Scientific and Technical Purposes.
Specialities: **Ethers, Chloroform.**
POLGLASE & CO Tyne Vale Chemical Works, Skinnerburn-rd., Newcastle-on-Tyne

ALL SIZES OF CARBOYS KEPT & KINDS & HAMPERS IN STOCK.

Ground Stoppered Carboys Supplied.

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Glue, Gelatine, & Size Manufacturers,
SUTTON-IN-ASHFIELD, NOTTS.
(Late BINDLEY & SON, Ltd., SMETHWICK.)

ALBUMENS, Pastes, Arabic Solution Vegetable and Animal Size, Gums, **GLUES, PREPARED PITHS,** Precipitated Bone Phosphate, Neatsfoot Oil, Greases, Manure Materials, &c.

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REGISTERED TRADE MARK

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Always sent on Approval.
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Especially suitable for certain materials, Wet or Dry.
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R COMPRESSING ENGINES.

S COMPRESSING ENGINES.

150,000 I.H.P. ALREADY AT WORK.

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HAUST AND BLAST FANS.

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ester Alum Works, Manchester; and Goole Alum Works, Goole.

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RED OXIDES,

Containing over 92 per cent. peroxide of iron, or reduced, at prices below any other makes of equal percentage.

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At lower prices than your own cost figures.
Paint made to any specified quality.

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Glucose
Grape Sugar
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Treacle
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FOR ALL HEAVY OR FINE

CHEMICALS,

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Photographic Developers,

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Also OILS and PRODUCE.

SAMPLES AND PRICES ON APPLICATION.

CORRESPONDENCE SOLICITED.

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TO BE LET on Lease or Sold, a valuable WHARF and LAND for Chemical Works on River Thames, near Gravesend, with three Barge Berths, 120 ft. frontage to the river; applicant could be assisted.—Apply, "Box 9," *Chemical Trade Journal* Office, Manchester.

WANTED, an Under-Foreman; one who thoroughly understands the Manufacture of Wood Naphtha, &c., &c.—Apply, Wrekin Chemical Co., Stirchley, Shifnal, Shropshire.

PERSULPHATE OF IRON for Sale very cheap. Suitable for extracting cyanides and precipitating sewage, and similar purposes. Apply, Sadler and Co., Middlesbrough.

FOREMAN.—Working Mechanical Engineer, sober, reliable man, Wanted, for Chemical Work in Virginia, U.S.A. Able to take entire charge of Plant, including Vacuum Pans, Pumps, Stills &c., &c., and control labour.—Address, stating age, experience, references, salary required, and whether married or single, "Yarg," *Chemical Trade Journal* Office, Manchester.

RECIPES and INSTRUCTIONS Wanted for making High Grade Concentrated Superphosphates of Lime, 40% to 45% (soluble phosphate).—Address, full particulars, price, etc., to "E.W.," at Hornecastles, 61, Cheapside, London, E.C.

CASEIN, VANILLIN COUMARIN —Large Buyers Wanted for the purchase of the above Specialties—Apply, "Casein," *Chemical Trade Journal* Office, Manchester.

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FOR SALE, large number of good Second-hand and New Wrought and Cast-Iron and Wood Tanks. All shapes and all sizes. Lists and prices on application. Enquiries solicited. Tanks of all kinds bought.—Apply, Thos. W. Ward, Fitzalan Chambers, Sheffield.

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TO BE LET, ASQUITH BOTTOM DYEWORKS situate at Sowerby Bridge, near Halifax, fitted up with all modern requisites for carrying on an extensive dyeing and finishing business, including velvets and velveteens. There is an unfailing supply of pure water with every convenience for a large business. The premises are admirably roaded, and situate at a short distance from the Sowerby Bridge Railway Station. The rates are low. Such an opportunity rarely occurs, as a good tenant would be very liberally dealt with.—Apply to

Messrs. Ingram and Huntriss,
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SULPHURIC ACID for SALE—R.O.V., D.O.V., and B.O.V., made from Sulphur—Enquiries solicited.—John Nicholson & Sons, Limited, Leeds.

SULPHIDE OF IRON for Sale, very good quality. Inquiries solicited.—John Nicholson and Sons, Limited, Chemical Works, Hunslet, Leeds.

LIQUID AMMONIA, all strengths, Correspondence invited.—John Nicholson & Sons, Ltd., Hunslet, Leeds.

AMMONIA, all qualities and strengths. Enquiries solicited.
Brotherton & Co., Birmingham, Leeds, and Wakefield

GAS TAR and AMMONIACAL LIQUOR Wanted.—Apply, Josiah Hardman *Milton, Staffs.*

J. STIFF & SONS,

MANUFACTURERS OF

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IN VITRIFIED STONEWARE.

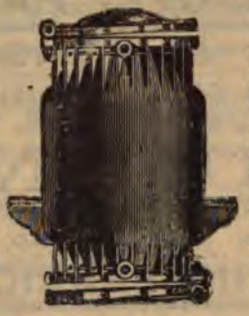
ACID PANS, ACID PIPES & CONNECTIONS, RECEIVERS, CONDENSING WORMS, RETORTS, COCKS, JARS, BOTTLES & INSULATORS, BATTERY JARS, POROUS CELLS, &c., &c.

LAMBETH, LONDON, S.E.

FULLER'S

BONE STEAMER.

Softens the Bones without extracting any of the Nitrogenous Substance.



Extraction of the Grease within an hour.

ESTIMATES FOR COMPLETE

BONE STEAMING AND GRINDING PLANT.

GRINDING MACHINERY

FOR EVERY DESCRIPTION OF MATERIAL.

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MANGANESE,
Up to 95°/₀
FLUOR SPAR, finest 98/99 per cent white quality.
WILHELM MINNER, Arnstadt, Germany.

MANGANESE
AND
FLUOR SPAR
of all kinds supplied by
CHR. GOTTL. FOERSTER, Ilmenau, Germany.

CHEMICALS, Pure and Commercial,
For Scientific and Technical Purposes.
Specialities: Ethers, Chloroform.
POLGLASE & CO Tyne Vale Chemical Works, Skinnerburn-rd., Newcastle-on-Tyne

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SAML., MEGGITT & SONS, LTD.,
Glue, Gelatine, & Size Manufacturers.
SUTTON-IN-ASHFIELD, NOTTS.
(Late BINDLEY & SON, Ltd., SMETHWICK.)

ALBUMENS, Pastes, Arabic Solution
Vegetable and Animal Size, Gums
GLUES, PREPARED PITHS, Precipitated Bone Phosphate, Neatsfoot Oil,
Greases, Manure Materials, &c.

W. KING, Benson St., LIVERPOOL.

MANGANESE
Up to 95 °/₀.
FLUOR SPAR,
Finest 98/99 per cent. quality.
EDUARD DIEMAR, Elgersburg, Germany.

BRYAN CORCORAN, LTD.

MILLSTONE BUILDER,
WIRE WEAVER, MACHINE MANUFACTURER AND GENERAL MILL FURNISHER.
Sole Maker of MILBURN'S
Patent Conoidal Stone Grinding Mills.
Especially suitable for certain materials, Wet or Dry.
Works and Warehouse:
Back Church Lane. *Parcel Dept.:* Basement of the Corn Exchange
31, MARK LANE, LONDON.

CANNINGTON, SHAW & CO., LIMITED,

CARBOYS.

SHERDLEY GLASSWORKS, ST. HELENS.

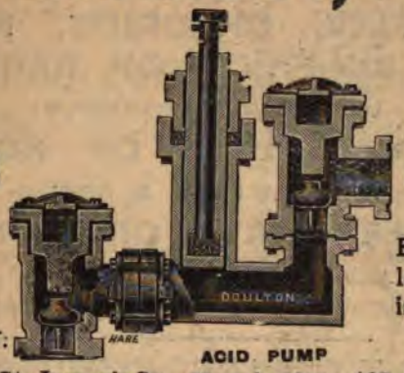
Liverpool: Exchange Chambers, Glasgow: West Campbell st.

Manchester: Oldham Road. London: Worship Street, E.C.

OULTON & CO., LTD., LAMBETH, LONDON,

UFACTURERS OF
ONEWARE
IEMICAL
'ARATUS
OF
DESCRIPTION.

ICE LISTS
PPLICATION.



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IMPROVED STONEWARE ACID PUMPS.

Each Pump prior to leaving the Factory is put into actual work and tested.

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PETER SPENCE & SONS,
ester Alum Works, Manchester; and Goole Alum Works, Goole.
SOLE MANUFACTURERS OF
ULPHALUMINE
(THE PUREST BRAND OF SULPHATE OF ALUMINA).
CRYSTAL ALUM (LUMP AND GROUND),
SOLE MANUFACTURERS OF THE WELL-KNOWN **ALUMINOFERRIC.**

GLASS RETORTS FOR CONCENTRATING ACIDS.

WEBB & CO.,
PENDLETON,
MANCHESTER.
Telegaphic Address,
"Retorts, Manchester.

For Ordinary or Continuous Process.

Estimates given for the Continuous Process fitted up complete.

TELEPHONE:
No. 20, St. Helens.
CHEMICAL PLANT.
W. NEILL & SON.
SPECIALITIES:

High or Low Speed. ENGINES. DRIVING ENGS. All high efficiency. GRINDING MLS. For all purposes. FILTER PRESSES. Castings. Burner Fronts, etc. BLOWING ENGS. PUMPS of every description, with Improved Valves. Vertical and Horizontal AIR COMPRESSRS.

GLYCERINE PLANTS.
St. Helens Junc., Lancs.
SOAP MACHINERY.
Tanks and Wrot. Ironwork.

Tenders.

RADCLIFFE & PILKINGTON GAS COMPANY.

THE Directors of this Company invite TENDERS for the purchase of 750 tons of the surplus TAR to be produced at their works in Radcliffe during the eleven months commencing the 1st day of November next.

Particulars may be obtained from the undersigned, to whom endorsed Tenders must be delivered not later than Tuesday, the 3rd of October.

JAS. BRADDOCK,
Gas Works, Radcliffe, Manager and Secretary.
September 20th, 1899.

WANTED, TENDER for Erection (only) of STONE TOWER, 50ft., 6ft. diameter; all materials found; hewers required to dress stone.—Apply, "Stone," *Chemical Trade Journal* Office, Manchester.

Miscellaneous.

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PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

DEMIJOHNS OR CARBOYS.—About 1,000 For Sale, cheap; wickered over up to lip, wicker caps, contents 3½ gallons, not been used; offers.—Walter Voss & Co., Glengall Road, Millwall, London, E.

ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL STEEL BOILERS (new) to work at 80lbs.; one 6ft. 8in. x 2ft. 9in., one 6ft. x 3ft., one 7ft. 7in. x 3ft., one 7ft. 6in. x 3ft. 3in. CORNISH STEEL BOILERS (new) to work at 80lbs.; one 12ft x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

TO SOAP MAKERS AND OTHERS.

THE Plant and Machinery at Albany Soap Works, Albany Row, Camberwell, will be SOLD BY PUBLIC AUCTION, in lots, on the premises, on Tuesday, October 10th, 1899, at 1 for 2 o'clock precisely, by Messrs. Bradshaw, Brown & Co., comprising:—15 h.p. Lancashire Boiler, Horizontal and Vertical Engines, 4-ton Soap Boiling Pan, Steam Jacketted Pans, Grinding Mill, Cast Iron Coolers, Cutting Machines, and Miscellaneous Articles.

Auctioneers' Offices:—Billiter Square Buildings, London, E.C.; and Millwall, London, E.

CHEAP GAS for ENGINES.—Gas GENERATORS and PLANT, for the economical and efficient propulsion of gas engines.—Address, Hydro-Kinetic, Princes Chambers, Birmingham.

COMPRESSORS for GAS and AIR. —MACHINES of various sizes for the highest pressures, on the one, two, three, or four-stage principle — Address, Hydro-Kinetic, Princes Chambers, Birmingham.

WANTED, Fuller's Bone Steamer, or any other good make, bearing from 30 to 40 lbs. pressure; must be in good condition. State capacity and full description.—Address, "Steamer," *Chemical Trade Journal* Office, Manchester.

WANTED, WORKS MANAGER, for large works; must have experience in dealing with workmen, and have been trained as engineer, both for steam and electric machinery.—Apply, stating experience and salary, to "Box 99, *Chemical Trade Journal* Office, Manchester.

WANTED, MANAGER for Chemical Works in Yorkshire, making Hydrochloric and Nitric Acids; must have knowledge of Vitriol making, and erection of plant for all articles mentioned herein.—Apply, "Yorkshire," *Chemical Trade Journal* Office, Manchester.

Miscellaneous—Cont.

WANTED, rectified SULPHURIC ACID; regular deliveries, 60 to 80 carboys weekly by van, to works near King's Cross.—Address, "X427," at Shelley's, 38, Gracechurch Street, London, E.C.

THE Advertiser desires Employment, having had 18 years' both Laboratory and Works experience in the manufacture of Magnesia and Carbonic Acid, at one of the leading works in the trade.—Address, Loughton, The Villa, Washington, R.S.O.

TWO-EDGE RUNNERS MILL and ENGINE for same, for Sale; Iron-bound Stones, 5 ft. 9 in dia., 18 in. broad; Pan, 7 ft. dia.—Apply, "Mills," *Chemical Trade Journal* Office, Manchester.

PERSULPHATE OF IRON for Sale very cheap. Suitable for extracting cyanides and precipitating sewage, and similar purposes. Apply, Sadler and Co., Middlesbrough.

WANTED, a really efficient and reliable head CHEMIST, one who is methodical in his ways, and accustomed to the routine of Iron and Steel Works. A man who has a taste for original work, and is accustomed to the analysis of gases, the determination of the calorific values of various substances, and the microscopic examination of iron and steel, will have the preference; salary to begin with, £200 per year.—Apply, stating experience and qualifications, to "A.M.," *Chemical Trade Journal* Office, Manchester.

SCOTT'S PATENT VACUUM PLANTS for Glycerine Production, Evaporation, etc.—We find it necessary to advise our customers and the public that we are the sole Proprietors of *all* the patents taken out by ourselves and Ernest Scott prior to June 30th last, and that the machinery and plant under those patents can only be obtained from GEORGE SCOTT & SON, 44, Christian-street, London, E., and 67, Lord-street, Liverpool.

We would moreover, say that the plants referred to as covered by patent are those which have been so successful, and whose advantages over all other systems have been demonstrated many times to our customers' entire satisfaction.

TWO 4½ by 5 inch new COMPRESSORS, belt driven; one 6 by 12 inch ditto, belt driven; one 4½ inch ram Cameron Steam Pump; one 2½ inch ditto; several Engines, Boilers, Tools, and Tanks.—J. Light, Wolverhampton.

WORKS FOR SALE, NEAR NORTHWICH
(Cheshire Salt District).

TO BE SOLD by Private Treaty, as a going concern, well-appointed CHEMICAL WORKS. Erected within the past 10 years. The plant is of modern and substantial description, in excellent condition, and is adapted for the manufacture of Vitriol, Muriatic Acid, Nitric Acid, and Saltcake, with an output of Bleaching Powder to the extent of 100 tons per week, and Caustic Soda 80 tons per week.

The land is about 10 acres in extent, freehold, and there are railway sidings and connections throughout the works; also a commodious wharf on the Trent and Mersey Canal; cheap and ready access to Liverpool, Manchester, and all other Mersey shipping ports. Options are held for the purchase of adjoining land for any required extensions. Excellent water supply, and in central situation for supplies of coal, lime, salt, and minerals.—"Lime," *Chemical Trade Journal* Office, Manchester.

VATS FOR SALE.—We have Six English Oak Vats, size from 350 barrels to 450 barrels each; also two about 100 barrels each.—Particulars, Brightwells, Coopers and Dealers in Old Casks, Burton-on-Trent.

FOR SALE, quick delivery, three new Cylindrical ACID TANK TRUCKS, tank 15 ft. long by 4 ft. 1½ in. diameter. Also one TANK 15 ft. long by 3 ft. 2 in. diameter.—Apply, C. Roberts & Co., Ltd., Railway Wagon and General Works, Horbury Junction, near Wakefield.

WOODEN VESSELS of every description, New or Second-hand; all shapes, dimensions, and capacities. We have on hand the largest stock in England, and firms requiring anything in this direction are kindly invited to write for particulars, etc., to Henry Roberts & Co., Vat and Back Makers, Bancroft Road, Mile End, London, E.

A large quantity of SECOND-HAND BREWER'S HOGSHEADS, BARRELS, KILDERKINS, FIRKINS, and PINS always in stock.—*Apply for prices, JOHN GROUT & Co., Ltd., Back and Vat Makers and Coopers, Burton-on-Trent.*

BLAYDON MANURE AND ALKALI COMP.'S

PURE WHITE SULPHATE OF ALUMINA, BLANC FIXE, CHLORIDE, NITRATE, AND SULPHIDE OF BARIUM.

UNITED ALKALI COMP.'S

HYPO-SULPHITE OF SODA,

WALTHER FELD & CO.'S

PURE PRECIP. CARBONATE OF BARYTES 96/98%

Also Hydrate and Anhydrous Alumina, Chloride and Carbonate of Alumina, Aluminate of Soda, Hydrate of Barium, &c.

Agents: JULIUS HULSEN & CO., NEWCASTLE-ON-TYNE.

36¾"
McNEIL'S
PATENT UNBREAKABLE
STEEL LADLES
These Ladles are manufactured by a patented process, each from a single steel plate without weld or rivet. They are extremely light, being at the same time the strongest and most durable in the market. Ladles to contain 56lb. of metal only weigh about 7lb. each. They are made of all capacities from 30lb. to 50 cwt., with or without lips; also mounted or unmounted. They are also suitable for chemical and metallurgical processes. List of sections and prices on application to
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31"
32"

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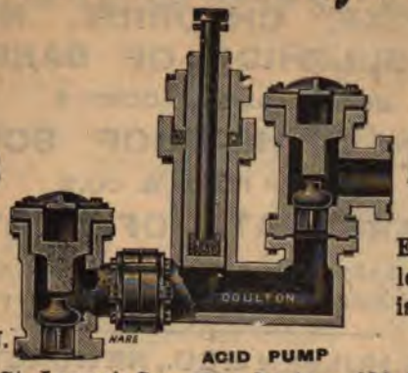
STONEWARE CHEMICAL APPARATUS OF ERY DESCRIPTION.

PRICE LISTS APPLICATION.



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nchester Alum Works, Manchester; and Goole Alum Works, Goole.

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SULPHALUMINE

(THE PUREST BRAND OF SULPHATE OF ALUMINA).

CRYSTAL ALUM (LUMP AND GROUND),

SO SOLE MANUFACTURERS OF THE WELL-KNOWN ALUMINOFERRIC.

WHY EMPLOY HAND LABOUR FOR RAISING ACIDS

When you can do it automatically with

KESTNER'S ACID ELEVATORS

AUTOMATIC

For Sulphuric Acid

Only C.I. or Lead Contact.)

For Hydrochloric Acid

(Ebonite Contact.)

For Nitric Acid

(Earthenware Contact.)

Why employ the Antiquated Acid Egg when you can SAVE MONEY by employing a modern and most reliable apparatus?

Apply to JOHN L. HODGSON, 4, Warren St., STOCKPORT.

GRAMS: l," St. Helens.

TELEPHONE: No. 20, St. Helens.

CHEMICAL PLANT.

W. NEILL & SON.

SPECIALITIES:

WALL ENGINES — High or Low Speed.

DRIVING ENGS. — For all purposes.

GRINDING MLS. — All high efficiency.

FILTER PRESSES. — Castings. Burner Fronts, etc.

BLOWING ENGS — PUMPS — AIR COMPRESSRS. — Vertical and Horizontal of every description, with Improved Valves.

GLYCERINE PLANTS.

St. Helens Junc., Lancs.

SOAP MACHINERY.

Metal d Work.

Tanks and Wrot. Ironwork

Miscellaneous.

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NUTSCH FILTERS, German make, Wanted, early delivery.—Address, with lowest price, Sadler & Co., Middlesbrough.

MILL for Grinding MICA to finest powder, Wanted.—Address, "Mica," *Chemical Trade Journal* Office, Manchester.

PARIS EXHIBITION—Gentleman of superior business experience, conversant with Patents, Contracts, Chemistry, mastering English, German, French, Spanish, and some Italian, desires to represent an important exhibitor. Can make Exhibit original and attractive. Best references. P. E. 900, c/o. Deacon's Leadenhall-street, London.

CALCIUM CARBIDE (for making Acetylene Gas) Lowest trade quotations wanted for ton lots, delivered ex ship Sydney.—Address, T. R. Peak, Manufacturing and Pharmaceutical Chemist, Nowra, Shoalhaven, New South Wales.

LEAD BURNER Wanted, immediately; thorough, competent, steady man, for Vitriol Works; permanence. State age, experience, and wages required.—Address, "Box 45," Plymouth.

TO CHEMICAL MANUFACTURERS, CAPITALISTS AND OTHERS,

TO CLOSE A TRUST.

TO BE SOLD BY PRIVATE TREATY as a GOING CONCERN with immediate possession, either together or separately,

ALL those valuable and old-established Chemical Works known as "Hardman's Milton and Tunstall Works," situate at Milton, near Stoke-on-Trent, and Bradwell Sidings, Chatterley, near Tunstall, both in the County of Stafford, successfully carried on for many years prior to his death by the late Mr. Josiah Hardman, and since then carried on by his Executors.

The site of the Milton Works, with the land appurtenant thereto, and which is Freehold or Enfranchised Copyhold, comprises about 18 acres, a great portion of which is conveniently adapted either for building purposes or for the enlargement of the Works.

The site of the Tunstall Works, which is Leasehold, comprises about ¾ acres.

Both Works are admirably situated, both as regards Railway and Canal accommodation, the former running into, and the latter alongside, of the Works

The two Works are fitted up with all necessary machinery and appliances for a most extensive business, and are capable of the following output:—

1. The distillation of 20,000 tons of Tar annually, and the dealing with the products therefrom.
2. The distillation of 20,000 tons of Ammonia Water annually (continuous process) for Sulphate of Ammonia manufacture.
3. The carbonising of 66,000 tons of Coal annually for the purpose of manufacturing Tar, Gas Water, Gas Coke, &c.
4. The manufacture of 5,000 tons annually of Sulphuric Acid.
5. Rectifying 500 carboys of Acid weekly.

The Rolling Stock includes 151 Coal and Coke Wagons, all in good condition, 39 Railway Tanks for conveying Tar, Gas Water, Oils, &c., 3 Canal Barges, 3 Locomotives, 3 Horses with Harness, 5 Carts, 3 Floats, 2 Four-wheeled Wagons, 12 Cart Tar Barrels, 600 yards (or thereabouts) of Permanent Way at Milton, and 920 yards (or thereabouts) at Tunstall, 2 Railway Weigh Bridges, 12 other Weighing Machines.

The Buildings, Sheds, Store Rooms and other erections are in excellent repair, having been rebuilt and modernised during the last few years.

Plans of the Properties can be seen, and any further information obtained on application to the Executors at Milton, Stoke-on-Trent, or to

Messrs. LLEWELLYN AND ACKRILL, Tunstall, Staffs.

24th October 1899. Vendors' Solicitors.

ACETATE OF LIME (Pyrolignite of Lime), Brown, 65-68 %. Is manufactured on a large scale, and sold direct to consumers at a moderate price,

BY STORA KOPPARBERGS BERGSLAGS AKTIEBOLAG, FALUN (Sweden).

Miscellaneous—Cont.

FOREMAN Wanted, who thoroughly understands the manufacture of Muriatic, Nitric, and Sulphuric Acids.—Apply, with full particulars, to "Muriate," *Chemical Trade Journal* Office, Manchester.

CASEIN, of different qualities, at VERY LOW PRICES.
D. Müller & Co., Hamburg.

CHEMIST wants Position, Works or Laboratory; ten years' experience with Bleach, Caustic, Vitriol, Tar and Ammonia, and Metallurgical Work; salary, moderate.—Apply, "Bleach," *Chemical Trade Journal* Office, Manchester.

YOUNG MAN (aged 20) desires APPOINTMENT AS ASSISTANT in a London Laboratory; has had experience in Food, Water, and Miscellaneous Analyses, under eminent public analyst.—Address, "W.B." 7, Londoun Road, St. John's Wood.

REPRESENTATIVE calling on Chemists, Druggists, and Sundriesmen in Ireland, can work one or two extra commissions.—"Sundries," *Chemical Trade Journal* Office, Manchester.

ONE 7in. and 11in. x 9in. Inverted Tandem Compound Engine, for very high speed; one pair 9in. x 12in. Inverted Coupled Engines, by Barrows and Stewart; 20 x 6 and 25 x 7 Lancashire Steam Boilers, and six Cornish Boilers; 4⅜in. ram Cameron Steam Pump; two copper-lined Jacketted Steam Pans; 6 cwt. and 13 cwt. Weighing Machines, by Avery.—J. Light, Wolverhampton.

ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL STEEL BOILERS (new) to work at 80lbs.; one 6ft. 8in. x 2ft 9in., one 6ft. x 3ft., one 7ft. 7in. x 3ft., one 7ft. 6in. x 3ft. 3in. CORNISH STEEL BOILERS (new) to work at 80lbs.; one 12ft x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

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FOREMAN, well up in Sulphuric Acid, Muriatic Acid, Bleach and Alkali (caustic and carbonate), desires Situation; good references.—Address, "B.D.," 109, Manchester-rd., Lostock Gralam, Cheshire.

WORKS TO LET on River Weaver, Canal, and near four Railway Stations; engine, boiler, drying and grinding machines; small brook of pure water alongside.—Mr. King, Benson Street, Liverpool.

TWO-EDGE RUNNERS MILL and ENGINE for same, for Sale; Iron-bound Stones, 5 ft. 9 in dia., 16 in. broad; Pan, 7 ft. dia.—Apply, "Mills," *Chemical Trade Journal* Office, Manchester.

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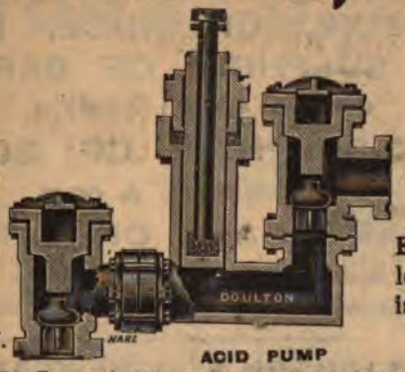
Y DESCRIPTION.

RICE LISTS
APPLICATION.



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CRYSTAL ALUM (LUMP AND GROUND).
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UMICE STONE
RECIPITATED CHALK
ZINC OXIDE
ZINC SULPHATE
VARNISHES.
SON & CO., 1, Creechurch Lane, LONDON, E.C.
TELEPHONE 2,889 AVENUE.

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Up to 95 %.
UOR SPAR,
Finest 98/99 per cent. quality.
DIEMAR, Elgersburg, Germany.

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GLYCERINE PLANTS.
St. Helens Junc., Lancs.
SOAP MACHINERY. Tanks and

Tenders.

THE Corporation of Middleton are prepared to receive TENDERS for the PURCHASE of TAR. Further particulars, and form of tender may be had on application to Mr. T. Duxbury, Gas Engineer.

Tenders, endorsed "Tender for Tar," and addressed to the Chairman of the Gas, &c., Committee, must be delivered at my office on or before Wednesday, the 15th instant.

The Corporation do not bind themselves to accept the highest or any tender.

FREDERICK ENTWISTLE,
Town Clerk.

Town Hall, Middleton,
6th November, 1899.

Miscellaneous.

☞ **Replies to Advertisements addressed to the "Chemical Trade Journal" Office, are forwarded to Advertisers, post free.**

PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D O V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

WANTED, for Abroad, RECIPES and PROCESSES for Tallows, Fats, Oils, Greases, Lubricants, Soaps, &c.—Address, "E.W.," at Horncastle's, 61, Cheapside, London.

MILL for Grinding MICA to finest powder, Wanted.—Address, "Mica," *Chemical Trade Journal* Office, Manchester.

IMPORTANT German Aniline Dye Works require REPRESENTATIVE for London and District, sufficiently posted up with the respective line of business, and having good connections.—Address, "Connections," *Chemical Trade Journal* Office, Manchester.

CHEMICAL BALANCES, two second-hand, FOR SALE; one a high-class Bunge's Balance.—Apply, Blake, Barclay & Co., Greenock.

VERTICAL DUPLEX GAS COMPRESSOR on Sale, steam cylinders 13in. diameter, gas cylinders 8in. diameter, stroke 12in., fitted with metallic valves and seats, complete on strong bed plate, nearly new; can be seen on appointment.—Brotherton & Co., Ammonia Works, Wakefield.

WANTED, second-hand SHANKS' LEACHING PLANT for Blackash, in good condition; applications stating number of tanks under.—Address, "Shanks," *Chemical Trade Journal* Office, Manchester.

RECIPES Wanted for all Materials used by Tanners, Curriers, Leather Dressers and Finishers, Boot Manufacturers, &c., such as Quick-Blacks, Leather Stains, Burnishing Inks, Waxes, Finishes, &c.—Address, "Stains," *Chemical Trade Journal* Office, Manchester.

TO PAINT AND CHEMICAL MANUFACTURERS, TAR DISTILLERS, ENGINEERS, BROKERS, AND OTHERS.

WHEATLEY KIRK, PRICE & Co. have received instructions from Messrs. The Clayton Aniline Co., Ltd., to SELL BY PUBLIC AUCTION, on Wednesday, November the 15th inst., commencing at eleven o'clock, prompt, upon the premises situate in Chatham Street, Ashton New Road, Clayton, Manchester (recently occupied by Messrs. C. R. Lindsey & Co., but now taken over by the above company), certain PAINT MAKING and TAR DISTILLING PLANT, also quantity of SURPLUS CHEMICAL PLANT and MACHINERY.

The Catalogue will comprise Five Cast Iron Circular Mixing Tanks, with Agitators; Grinding and Paint Mills; 9in. by 18in. Horizontal Steam Engine, by Tangye; 13in. by 16in. ditto, by Robinson; Vertical Pumps; One 8-ton and One 15-ton Wrought Iron Stills; 2-ton "Linde" Patent Ammonia Compression Ice Machine; Ore Crushers; Five Horizontal Filter Presses; Hydro Extractor; Wrought and Cast Iron Pans; Boat Tanks; Brick-built Stove and Drying Benches; Wood Tanks, lined with Lead; Wood Vats; Stone Cisterns; Condensing Tower, 24ft. high; Wrought Iron Shafting and Pulleys; Dormant Weighing Machine; and other effects.

Catalogues may be obtained on application from the Auctioneers, Wheatley Kirk, Price & Co., Albert Chambers Albert Square, Manchester; and 49, Queen Victoria St., London, E.C. Telegrams, "Indicator," Manchester.

Miscellaneous—Cont.

FOREMAN Wanted for Wet Process Copper Works, thoroughly competent.—Address, "Copper," *Chemical Trade Journal* Office, Manchester.

WANTED to Purchase, a nucleus of an Analytical Practice, or to join a gentleman as Partner; or Advertiser would entertain purchase of small Chemical Works.—Apply to Mr Huish, Transfer Agent, 8. Fisher Street, Red Lion Square London, W.C.

FOR SALE, at much reduced prices, the Contents of a Chemical Laboratory the property of a gentleman retiring from professio al work —To be seen at Messrs. J. Griffin & Sons Sardinia Street, Lincoln's Inn Fields, London.

CASEIN, of different qualities, at VERY LOW PRICES.
D. Müller & Co., Hamburg.

WANTED, second-hand Jacketted STILL, in good condition; working capacity not less than 600 gallons.—Rough sketch and lowest price to W. Davison, 91, Shad Thames, London, S.E.

WANTED, SITUATION by young man, 18 years of age, with 2½ years' experience in Sulphuric Acid and Manure Works Laboratory; disengaged —Address, "Acid," *Chemical Trade Journal* Office, Manchester.

CHEMIST wants Position, Works or Laboratory; ten years' experience with Bleach, Caustic, Vitriol, Tar and Ammonia, and Metallurgical Work; salary, moderate.—Apply, "Bleach," *Chemical Trade Journal* Office, Manchester.

ONE 7in. and 11in. x 9in. Inverted Tandem Compound Engine, for very high speed; one pair 9in. x 12in. Inverted Coupled Engines, by Barrows and Stewart; 20 x 6 and 25 x 7 Lancashire Steam Boilers, and six Cornish Boilers; 4½in. ram Cameron Steam Pump; two copper-lined Jacketted Steam Pans; 6 cwt. and 13 cwt. Weighing Machines, by Avery.—J. Light, Wolverhampton.

ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL STEEL BOILERS (new) to work at 80lbs.; one 6ft. 8in. x 2ft 9in., one 6ft. x 3ft., one 7ft. 7in. x 3ft., one 7ft. 6in. x 3ft 3in. CORNISH STEEL BOILERS (new) to work at 80lbs.; one 12ft x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

CHEAP GAS for ENGINES.—Gas GENERATORS and PLANT, for the economical and efficient propulsion of gas engines.—Address, Hydro-Kinetic, Princes Chambers, Birmingham.

COMPRESSORS for GAS and AIR. —MACHINES of various sizes for the highest pressures, on the one, two, three, or four-stage principle —Address, Hydro-Kinetic, Princes Chambers, Birmingham.

FOREMAN, well up in Sulphuric Acid, Muriatic Acid, Bleach and Alkali (caustic and carbonate), desires Situation; good references.—Address "B.D.," 109, Manchester-rd., Lostock Gralam, Cheshire.

WORKS TO LET on River Weaver, Canal, and near four Railway Stations; engine, boiler, drying and grinding machines; small brook of pure water alongside.—Mr. King, Benson Street, Liverpool.

TWO-EDGE RUNNERS MILL and ENGINE for same, for Sale; Iron-bound Stones, 5 ft. 9 in dia., 16 in. broad; Pan, 7 ft. dia.—Apply, "Mills," *Chemical Trade Journal* Office, Manchester.

PERSULPHATE OF IRON for Sale very cheap. Suitable for extracting cyanides and precipitating sewage, and similar purposes. Apply, Sadler and Co., Middlesbrough.

FOR SALE, quick delivery, three new Cylindrical ACID TANK TRUCKS, tank *15 ft. ong* by 4 ft. 1½ in. diameter. Also one TANK *15 ft. long by 3 ft. 2 in. diameter.*—Apply, C. Roberts & Co., Ltd., Railway Wagon and General Works, Horbury Junction, near Wakefield.

BLAYDON MANURE AND ALKALI COMP.'S
PURE WHITE SULPHATE OF ALUMI
BLANC FIXE, CHLORIDE, NITRATE,
AND SULPHIDE OF BARIUM.
UNITED ALKALI COMP.'S
HYPO-SULPHITE OF SODA,
WALTHER FELD & CO.'S
PURE PRECIP. CARBONATE OF BARYTES 96
Also Hydrate and Anhydrous Alumina, Chloride and Carbonat
Alumina, Aluminate of Soda, Hydrate of Barium, &c.
Agents: JULIUS HULSEN & CO., NEWCASTLE-ON-TY

GLUE.
Fine, Scotch, Town, Medal,
AND OTHER GLUES.
GELATINE, SIZE, GREASE & MANURE.
The GROVE CHEMICAL CO., Ltd.,
Crown Works, Appley Bridge, Wigan, Lancs.

MANGANES
AND
FLUOR SPA
of all kinds supplied by
CHR. GOTTL. FOERSTER, Ilmenau, Ger

ALL SIZES OF CARBOYS KEPT & KINDS & HAMPERS IN STOCK.

Ground Stoppered Carboys Supplied.

SAML., MEGGITT & SONS,
Glue, Gelatine, & Size Manufact
SUTTON-IN-ASHFIELD, N
(Late BINDLEY & SON, Ltd., SMETH

ALBUMENS, Pastes, Arabic So
Vegetable and Animal Size,
GLUES, PREPARED PITHS, P
tated Bone Phosphate, Neatsfo
Greases, Manure Materials,

MANURE & CEMENT PLANT
Grinding and Crushing Machinery.
VICKERS' MIXERS.
PRATCHITT BROTHERS, Carlisle.

W. KING, Benson St., LIVER

BRYAN CORCORAN,

MILLSTONE BUIL
WIRE WEAVER, MACHINE MAN
AND GENERAL MILL FURN
Sole Maker of MILBUR
Patent Conoidal Stone Grind
Especially suitable for
materials, Wet or
Works and Warehous
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Corn Exchange
31, MARK LANE, LOND

CANNINGTON, SHAW & CO., LIMITED,
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Liverpool: Exchange Chambers.
Glasgow: West Campbell st.
SHERDLEY GLASSWORKS, ST. HELENS

OULTON & CO., LTD., LAMBETH, LONDON,

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TONEWARE
CHEMICAL
PPARATUS
OF
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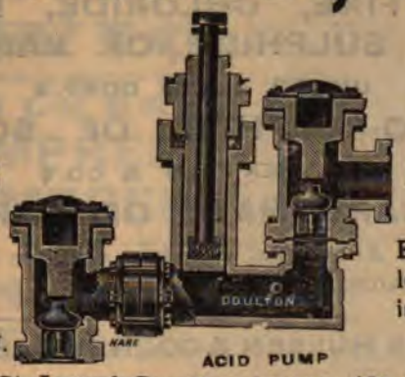

ACID PUMP

IMPROVED
STONEWARE
ACID PUMPS.

Each Pump prior to leaving the Factory is put into actual work and tested.

OWROOMS: St. James's Sq., Manchester; 100, Soho St., Liverpool. Granville St., Birmingham; 38 and 40, Bothwell St., Glasgow; 6, Rue de Paradis, Paris.

PETER SPENCE & SONS,

chester Alum Works, Manchester; and Coole Alum Works, Coole.
SOLE MANUFACTURERS OF

SULPHALUMINE

(THE PUREST BRAND OF SULPHATE OF ALUMINA).
CRYSTAL ALUM (LUMP AND GROUND),
SO SOLE MANUFACTURERS OF THE WELL-KNOWN ALUMINOFERRIC.

UMICE STONE ZINC OXIDE
RECIPITATED CHALK ZINC SULPHATE
VARNISHES.

LSON & CO., 1, Creechurch Lane, LONDON, E.C.
TELEPHONE 2,889 AVENUE.

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Now Ready.
21s. nett.
Over 400 Pages

GRAMS:
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TELEPHONE:
No 20, St. Helens.

CHEMICAL PLANT.

W. NEILL & SON.

SPECIALITIES:

WALL ENGINES — High or Low Speed.
DRIVING ENGS. — All high efficiency.
GRINDING MLS. — For all purposes.
FILTER PRESSES. — Castings. Burner Fronts, etc.
BLOWING ENGS — PUMPS — AIR COMPRESSRS. — Vertical and Horizontal of every description, with Improved Valves.

GLYCERINE PLANTS.

St. Helens Junc., Lancs.

SOAP MACHINERY.

Metal
Tanks and

Tenders.

KYNOCH LIMITED, invite Tenders for the supply, at their various works, of the undermentioned materials, for a term of six or twelve months, from the 1st day of January, 1900.

1. TIMBER.—Spruce, Red Deal, Elm, M'bds, Hard Sawdust, etc.
2. GENERAL STORES AND DRYSALTERY.—Ropes, Twines, I. R. Goods, Hemp and Asbestos Packing, Paints, Brushes, Methylated Spirits, Copper Gauze, Nails, Wood Screws, Lead Shot, Leather Goods Poots and Clogs, Crucibles, Glue, Plating and Polishing Materials, Oils, etc.
3. ENGINEERS' STORES.—Bolts and Nuts, Tubes, Valves, Files, Hand-tools, Grindstones, Soap Die Plates, Stencils, etc.
4. SOFT GOODS.—Lining, Baize, Scourers, Wadding Felts, Fents, Jean, Cotton Waste, Cotton Waste suitable for Gun Cotton, Sponge Cloths, etc.
5. IRON, STEEL, and OTHER METAL WARE—Black Sheets, Tinplates, Bar Iron, Silve Steel, Steel Strip, Galvanised Buckets, Tinfoil, Sheet Lead, Iron, and G. M. Castings Swedish Iron, Steel, etc.
6. BUILDING MATERIALS — Furnace Bricks and Clay, Lime, Cement, Gannister, China Clay, Silver Sand, etc.
7. PAPERS, LEATHER BOARDS and STRAW BOARDS — Browns, Coloured, Printings, Leather Boards, Straw Boards, etc.
8. CHEMICALS.—Aquafortis, Sulphuric Acid, Salt, Barytes, Soda Ash and Crystals, Chalk, Charcoal, Carbolic Acid, Muriatic Acid, Brown and Grey Acetate o Lime, etc.

All information, with forms of tender may be obtained, and samples viewed on application on and after Nov. 30th. Written applications should be marked "Tender Forms."

The Company do not pledge themselves to accept the lowest or any tender.

Tenders (which must be made on the prescribed form, and posted in envelopes, supplied) to be sent to THE SECRETARY, KYNOCH LIMITED, WITTON, BIRMINGHAM, so as to be delivered not later than the 11th December.

By order of the Board.

Lion Works, Witton, Birmingham. FRANK HUXHAM, Secretary.

November 24th, 1899.

Miscellaneous.

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PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers. B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

WANTED, a good VACUUM PAN, from 10 to 20 gallons capacity, with Condenser and Vacuum Pump.—Apply by letter, giving price, etc., to "H.," 4, Trinity Street, Cambridge.

YOUNG CHEMIST, Ph.D., seeks employment in the Chemical Laboratory of a Scientist or Manufacturing Chemist; good references.—Address letters "P.H.," *Chemical Trade Journal* Office, Manchester.

VERTICAL DUPLEX GAS COMPRESSOR on Sale, steam cylinders 13in. diameter, gas cylinders 8in. diameter, stroke 12in., fitted with metallic valves and seats, complete on strong bed plate, nearly new; can be seen on appointment.—Brotherton & Co., Ammonia Works, Wakefield.

RECIPES Wanted for all Materials used by Tanners, Curriers, Leather Dressers and Finishers, Boot Manufacturers, &c., such as Quick-Blacks, Leather Stains, Burnishing Inks, Waxes, Finishes, &c.—Address, "Stains," *Chemical Trade Journal* Office, Manchester.

ACETATE OF LIME
(Pyrolignite of Lime),
Brown, 65-68 %.
Is manufactured on a large scale, and sold direct to consumers at a moderate price,
BY
STORA KOPPARBERGS BERGSLAGS AKTIEBOLAG,
FALUN (Sweden).

WANTED, second-hand STILL, in good condition, working capacity not less than 600 gallons. Also good size FILTER PRESS.—Lowest prices

Miscellaneous—Cont.

GLASGOW CORPORATION.

POLICE DEPARTMENT.

THE Corporation of Glasgow invite Applications for the post of CORPORATION CHEMIST. Candidates must be competent Analytical Chemists, able to make such special investigations as may be required by the Corporation, and to analyse correctly and report fully upon samples of Air, Water, Effluents from Public Works, Furnace and Sewer Gases, Minerals, Sewage, Sewage Sludge, Foods and Drugs, Milk, Oils, Paints White and Red Lead, and generally all Articles forming the staple stores of the various Departments of the Corporation which are capable of being adulterated.

Preference will be given to Candidates holding Chemical Diplomas, and possessing practical acquaintance with the work done in an Analytical Chemist's Laboratory.

The person to be appointed will be required to devote his whole time to the duties of the office.

The salary to be at the rate of £350 per annum.

Applications, accompanied by copies of not more than six testimonials, must be lodged with the Subscriber not later than Monday, 27th November current. Canvassing before that date will disqualify applicants.

JOHN LINDSAY,
Interim Clerk to the Corporation Police Department.
City Chambers, Glasgow, 13th November, 1899.

PRACTICAL Working FOREMAN, Aniline, Toluidene, and Oleic Acid Maker, wants Situation; 20 years' experience, good references.—Address, "Aniline 53," *Chemical Trade Journal* Office, Manchester.

WANTED, back vols. or sets of "Chemical News," "Chemical Soc. Journal," "Nature," "Knowledge," "Philosophical Magazine," Scientific Journals and Periodicals Natural History Works, &c.—Hall, Chapel Place, Tunbridge Wells.

H_2SO_4 Without Lead-chambers (by the catalytic process).—FOR SALE, NEW METHOD, successfully working abroad; greatest economy.—Address, "S.A. 53," *Chemical Trade Journal* Office, Manchester.

INSTITUTE of CHEMISTRY of GREAT BRITAIN and IRELAND.—Notice is Hereby Given, that an EXAMINATION for the ASSOCIATESHIP (A.I.C.) and FELLOWSHIP (F.I.C.) of the Institute of Chemistry will be held at 30, BLOOMSBURY-SQUARE, London, W.C., on TUESDAY, Jan. 9, 1900, and three following days.

Forms of application can be obtained from the Secretary.—By order of the Council,

J. MILLAR THOMSON, Hon. Registrar.
No. 30 Bloomsbury-square London, W.C. Nov. 10, 1899.

WANTED, for Abroad, RECIPES and PROCESSES for Tallows, Fats, Oils, Greases, Lubricants, Soaps, &c.—Address, "E W.," at Horncastle's, 61, Cheapside, London.

WANTED, a permanent Situation as Chemical Plumber or as Lead Burner; total abstainer; good references given.—Please apply "Abstainer 53," *Chemical Trade Journal* Office, Manchester.

FOREMAN Wanted, immediately, thoroughly competent to take charge of the manufacture of Cylinder Nitric Acid and Cylinder Muriatic Acid.—"Cylinder 53," *Chemical Trade Journal* Office, Manchester.

WANTED, a first-class commercial MANAGER, to take entire charge of a large Chemical business. Must have a knowledge of the manufacturing processes. State age, qualification, and salary required.—Address, "Box 40," Wheeler's Advertising Office, Manchester.

ONE 7in. and 11in. x 9in. Inverted Tandem Compound Engine, for very high speed; one pair 9in. x 12in. Inverted Coupled Engines, by Barrows and Stewart; 20 x 6 and 25 x 7 Lancashire Steam Boilers, and six Cornish Boilers; 4¾in. ram Cameron Steam Pump; two copper-lined Jacketted Steam Pans; 6 cwt. and 13 cwt. Weighing Machines, by Avery.—J Light, Wolverhampton.

ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL *STEEL BOILERS (new)* to work at 80lbs.; one 6ft. 8in. x 2ft 9in., one 6ft. x 3ft., one 7ft. 7in. x 2ft., one 7ft 6in. x 3ft. 3in. *CORNISH STEEL BOILERS (new)* to work at 80lbs.; one 12ft. x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

BLAYDON MANURE AND ALKALI COMP.'S

PURE WHITE SULPHATE OF ALUMIN

BLANC FIXE, CHLORIDE, NITRATE,

AND SULPHIDE OF BARIUM.

UNITED ALKALI COMP.'S

HYPO-SULPHITE OF SODA,

WALTHER FELD & CO.'S

PURE PRECIP. CARBONATE OF BARYTES 96/

Also Hydrate and Anhydrous Alumina, Chloride and Carbonate Alumina, Aluminate of Soda, Hydrate of Barium, &c.

Agents: JULIUS HULSEN & CO., NEWCASTLE-ON-TY

36¾"
McNEIL'S
PATENT UNBREAKABLE
STEEL LADLES
These Ladles are manufactured by a patented process, each from a single steel plate without weld or rivet. They are extremely light, being at the same time the strongest and most durable in the market. Ladles to contain 56lb. of metal only weigh about 7lb. each. They are made of all capacities from 30lb. to 50 cwt., with or without lips; also mounted or unmounted. They are also suitable for chemical and metallurgical processes. List of sections and prices on application to
CHAS. McNEIL, Jr.
KINNING PARK IRONWORKS,
GLASGOW.
31"
32"

MANGANESE, Up to 95%

FLUOR SPAR, finest 98/99 per cent white quality.

WILHELM MINNER, Arnstadt, Germany.

MANURE & CEMENT PL

Grinding and Crushing Machiner

VICKERS' MIXE

PRATCHITT BROTHERS, Car

SAML., MEGGITT & SONS, L

Clue, Celatine, & Size Manufactu

SUTTON-IN-ASHFIELD, NO

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ALBUMENS, Pastes, Arabic Sol
Vegetable and Animal Size,
GLUES, PREPARED PITHS, Pr
tated Bone Phosphate, Neatsfo
Greases, Manure Materials.

W. KING, Benson St., LIVERP

BRYAN CORCORAN,

MILLSTONE BUILI
WIRE WEAVER, MACHINE MANUF
AND GENERAL MILL FURNIS
Sole Maker of MILBURN
Patent Conoidal Stone Grindi
Especially suitable for
materials, Wet or D
Works and Warehouses
Back Church Lane. *Parcel Dept.:* Basemen
Corn Exchange
31, MARK LANE, LOND

Liverpool: Exchange Chambers, Glasgow: West Campbell st.

CANNINGTON, SHAW & CO., LIMITED,

CARBOYS.

SHERDLEY GLASSWORKS, ST. HELENS.

WALKER BROS.,

ENGINEERS, PAGEFIELD IRONWORKS,

WIGAN.

WALKERS' PATENT

AIR COMPRESSING ENGINES.

GAS COMPRESSING ENGINES.

150,000 I.H.P. ALREADY AT WORK.

WALKERS' PATENT

EXHAUST AND BLAST FANS.

PETER SPENCE & SONS,

Manchester Alum Works, Manchester; and Coole Alum Works, Coole.

SOLE MANUFACTURERS OF

SULPHALUMINE

(THE PUREST BRAND OF SULPHATE OF ALUMINA).

CRYSTAL ALUM (LUMP AND GROUND),

ALSO SOLE MANUFACTURERS OF THE WELL-KNOWN **ALUMINOFERRIC.**

THE "ARCHIMEDEAN"

STERILIZER . . .

AND

. . EMULSIFIER

The Illustration represents an improved type of Machine adapted for mixtures in the manufacture of **Emulsions, &c.,** also for **Milk Sterilizing,** as recommended by the Medical Profession,—especially for Infants and Invalids.

The Machine is fitted with our patent Stirring Apparatus to work by hand. All inside parts being coated with Pure Tin. Underneath the pan is fitted a "Bunsen" Gas Generator for heating

For Prices and Particulars apply to

THE ARCHIMEDEAN CO.,

69, LEAM TERRACE EAST,

LEAMINGTON, Warwickshire.

SPECIALITIES:—

SODA ASH 58% POTASHES SALTCAKE BLEACH LITHIA SALTS BORAX MERCURIALS SUL. COPPER PRUSSIATES CYANIDES METALS MINERALS BRIMSTONE SULPHUR

Phosphoric Acid, Acetates, Oxalic Acid, Tartaric Acid, Salicylic Acid, Carbolic Acid, Camphor, Stearine, Glycerine, OLEINE

Castor Oil, Olive Oil, Essent. Oils, Glucose, Grape Sugar, Cane Syrup, Treacle, Nitrate of Silver (Pure)

Amidol, Metol, Glycin, Thiocarbamid and other Photographicals, Lumières, Dry Plates, &c., &c.

IMPORTERS—Commission Merchants—EXPORTERS.

Telephone No. 1050.

FUERST BROS.,

Telegrams—"FUERST, LONDON."

LONDON: 17, Philpot Lane, E.C.

HEADQUARTERS FOR ALL HEAVY OR FINE CHEMICALS,

Pharmaceutical Products,

Photographic Developers,

Drysalteries and Drugs,

Also OILS and PRODUCE.

SAMPLES AND PRICES ON APPLICATION.

CORRESPONDENCE SOLICITED.

Tenders.

THE SCOTT-VOGT CHEMICAL COMPANY, LTD.
(IN LIQUIDATION).

BUILDINGS, GROUND, PLANT AND PATENTS FOR SALE BY TENDER,
IN ONE OR MORE LOTS.

THE Subscribers invite TENDERS for the Buildings, Ground, Plant, Stock and Patents belonging to The Scott-Vogt Chemical Company, Limited (in Liquidation).

The Assets stand in the Books of the Company as follows:—

(1) Office and Laboratory Furnishings, etc.	£68	8	1
(2) Buildings	2,586	9	0
(3) Plant	4,075	17	7
Total thus	£6,730	14	8

There are also Patents which are believed to be of considerable value.

The Ground, which extends to three acres or thereby, is held subject to an annual Feu-Duty of £38. 11s. 1d., and is situated on the south side of the Forth and Clyde Canal, to the east of the town of Kirkintilloch.

The Works forming the Buildings, which have all been erected within the last three years, and are substantially built and in first-class order, will, together with the Plant, etc., be on view each lawful day from ten till three o'clock, and Cards of Admission will be supplied by the Subscribers.

Tenders for the Buildings, Ground, Plant, and Patents, etc., in one or in separate lots, will be received by the Subscribers up till Twelve o'clock noon of TUESDAY, 12th DECEMBER prox., but the Liquidator, Mr. W. B. Galbraith, C.A., Glasgow, does not bind himself to accept the highest or any Tender.

Meantime all further particulars may be learned on application to Messrs. John S. Galbraith & M'Gill, Writers, 69, St. Vincent Street, who hold the title deeds of the property and also the patents, or the Subscribers:—

WALTER & W. B. GALBRAITH, C.A.

107, Buchanan Street,
Glasgow, 21st November, 1899.

Miscellaneous.

☞ **Replies to Advertisements addressed to the "Chemical Trade Journal" Office, are forwarded to Advertisers, post free.**

PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers, B.O.V., D.O.V., R.O.V., free from arsenic. — Milnsbridge Chemical Co., Huddersfield.

FOR SALE, two STEEL STEAM JACKETTED MIXING PANS, 500 gallons capacity; one barrel HAND MIXER, 40 gallons capacity. The above fitted with Horne's Patent Stirring Apparatus. —Address, The Archimedean Co., 69, Leam Terrace East, Leamington.

MANAGING CHEMIST, Ph.D., over four years' practical experience in Coal Tar Products and Aniline Colours, seeks Position in Tar Works or Fine Chemical Manufactory. First class references.—Address, "Z 53," *Chemical Trade Journal* Office, Manchester.

WANTED, 1,000 tons of B.O. Vitriol (Arsenical); sellers trucks on rails.—"Rails 54," *Chemical Trade Journal* Office. Manchester.

AGENTS AND TRAVELLERS WANTED, to call on Fruitgrowers, Market and Gentlemen's Gardeners, Nurserymen, &c., with well-known FERTILIZER.—Address, "Fertilizer," c/o Street & Co., 30, Cornhill, London, E.C.

CRYSTALLIZING PANS.—Wanted, about six, dish-shaped preferred, size about 6ft. by 3ft.—Address, "Crystals 54," *Chemical Trade Journal* Office. Manchester.

YOUNG CHEMIST, Ph.D., seeks employment in the Chemical Laboratory of a Scientist or Manufacturing Chemist; good references.—Address letters "P.H.," *Chemical Trade Journal* Office, Manchester.

WOOD ACID FOR SALE.—For particulars, apply to "Acid 54," Chemical Trade Journal Office, Manchester

Miscellaneous—Cont.

VERTICAL DUPLEX GAS COMPRESSOR on Sale, steam cylinders 13in. diameter, gas cylinders 8in. diameter, stroke 12in, fitted with metallic valves and seats, complete on strong bed plate, nearly new; can be seen on appointment.—Brotherton & Co, Ammonia Works, Wakefield.

SITUATION Wanted Abroad (Colonial or Foreign) by gentleman aged 24, with a thorough practical knowledge of the manufacturing Colour, Varnish, and Oil trade, also Book-keeping; highest references.—"H.," c/o Mr. Henderson, 3, Dunsmure Road, Stamford Hill, London, N.

TANKS.—For Sale, two Acid Tanks without wagons, capable of holding 9 tons and 7 tons of acid.—Apply to J. H. Mawson, Solicitor, Carlisle.

WANTED, by Chemist, Situation in Dyeing, Printing, or Colour Works; 3½ years' experience in dyeworks' laboratory, good knowledge of anilines, highest references.—Address, "Colour 54," *Chemical Trade Journal* Office, Manchester.

CHEMIST, acquainted with the Cyaniding of Gold Ores will shortly be open for an engagement. Presently abroad. Will be pleased to open communications with some firm if they will kindly address in first instance to "Abroad 54," *Chemical Trade Journal* Office, Manchester.

RECIPES Wanted for all Materials used by Tanners, Curriers, Leather Dressers and Finishers, Boot Manufacturers, &c, such as Quick-Blacks, Leather Stains, Burnishing Inks, Waxes, Finishes, &c.—Address, "Stains," *Chemical Trade Journal* Office, Manchester.

TO Manufacturers and Others.—Chemist, having considerable technical experience in the control of chemical operations and erection of plant, is open to advise manufacturers upon their processes, or to undertake analytical and investigation work in connection with same.—Apply, "Technical," *Chemical Trade Journal* Office, Manchester.

PRACTICAL Working FOREMAN, Aniline, Toluidene, and Oleic Acid Maker, wants Situation; 20 years' experience, good references.—Address, "Aniline 53," *Chemical Trade Journal* Office, Manchester.

WANTED, a permanent Situation as Chemical Plumber or as Lead Burner; total abstainer; good references given.—Please apply "Abstainer 53," *Chemical Trade Journal* Office, Manchester.

ONE 7in. and 11in. x 9in. Inverted Tandem Compound Engine, for very high speed; one pair 9in. x 12in. Inverted Coupled Engines, by Barrows and Stewart; 20 x 6 and 25 x 7 Lancashire Steam Boilers, and six Cornish Boilers; 4⅜in. ram Cameron Steam Pump; two copper-lined Jacketted Steam Pans; 6 cwt. and 13 cwt. Weighing Machines, by Avery.—J. Light, Wolverhampton.

ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL STEEL BOILERS (new) to work at 80lbs.; one 6ft. 8in. x 2ft. 9in., one 6ft. x 3ft., one 7ft. 7in. x 3ft., one 7ft. 6in. x 3ft. 3in. CORNISH STEEL BOILERS (new) to work at 80lbs.; one 12ft. x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

WANTED, for Abroad, RECIPES and PROCESSES for Tallows, Fats, Oils, Greases, Lubricants, Soaps, &c.—Address, "E W.," at Horncastle's, 61, Cheapside, London.

CHEAP GAS for ENGINES.—Gas GENERATORS and PLANT, for the economical and efficient propulsion of gas engines.—Address, Hydro-Kinetic, Princes Chambers, Birmingham.

COMPRESSORS for GAS and AIR. —MACHINES of various sizes for the highest pressures, on the one, two, three, or four-stage principle.—Address, Hydro-Kinetic, Princes Chambers, Birmingham.

WORKS TO LET on River Weaver, *Canal, and near four Railway Stations; engine, boiler, drying and grinding machines; small brook of pure water alongside.—Mr. King, Benson Street, Liverpool.*

J. STIFF & SONS,
MANUFACTURERS OF
CHEMICAL APPARATUS
IN VITRIFIED STONEWARE.
ACID PANS, ACID PIPES & CONNECTIONS, RECEIVERS, CONDENSING WORMS, RETORTS, COCKS, JARS, BOTTLES & INSULATORS, BATTERY JARS, POROUS CELLS, &c., &c.
LAMBETH, LONDON, S.E.

MANGANESE
Up to 95 %
FLUOR SPAR,
Finest 98/99 per cent. quality.
EDUARD DIEMAR, Elgersburg, Germany.

MANGANESE,
Up to 95%
FLUOR SPAR, finest 98/99 per c
white quality.
WILHELM MINNER, Arnstadt, Germa

FULLER'S
BONE STEAMER.

Softens the Bones without extracting any of the Nitrogenous Substance.
Extraction of the Grease within an hour.

ESTIMATES FOR COMPLETE
BONE STEAMING AND GRINDING PLANT.
GRINDING MACHINERY
FOR EVERY DESCRIPTION OF MATERIAL.
W M. FULLER, Jun.,
88, Great Charles Street, Birmingham

MANGANES
AND
FLUOR SPA
of all kinds supplied by
CHR. GOTTL. FOERSTER, Ilmenau, Ger

SAML., MEGGITT & SONS,
Glue, Gelatine, & Size Manufacti
SUTTON-IN-ASHFIELD, N
(Late BINDLEY & SON, Ltd., SMETH

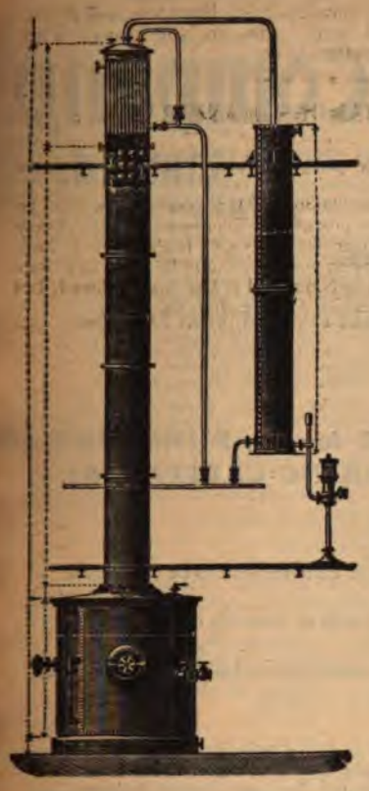
ALBUMENS, Pastes, Arabic Sol
Vegetable and Animal Size,
GLUES, PREPARED PITHS, P
tated Bone Phosphate, Neatsfo
Greases, Manure Materials,
W. KING, Benson St., LIVER

MANURE & CEMENT PLANT
Grinding and Crushing Machinery
VICKERS' MIXERS.
PRATCHITT BROTHERS, Carlisle

BRYAN CORCORAN,

MILLSTONE BUIL
WIRE WEAVER, MACHINE MANU
AND GENERAL MILL FURN
Sole Maker of MILBUR
Patent Conoidal Stone Grind
Especially suitable for
materials, Wet or D
Works and Warehouse
Back Church Lane. *Parcel Dept.:* Basem
Corn Exchange
31, MARK LANE, LONI

Liverpool: Exchange Chambers, Glasgow: West Campbell st.
CANNINGTON, SHAW & CO., LIMITED,
CARBOYS.
SHERDLEY GLASSWORKS, ST. HELENS



DISTILLING APPARATUS

(HECKMANN),

For Benzol, Alcohol, Glycerine, Stearine, etc., etc., etc.

All Communications to be addressed to the London Office:—

C. HARZER,

79½, Gracechurch-st., LONDON, E.C.

BARRY, HENRY & CO., LTD.

FOUNDERS, ENGINEERS, & MILLWRIGHTS.

THE LEADING SPECIALISTS FOR THE

TRANSMISSION OF POWER

PATENT STEEL PULLEY.

GEAR WHEELS.
ROPE and BELT PULLEYS.
SHAFTING and FIXINGS.

AND MATERIALS.

ENGINES and WATER WHEELS.
CONVEYORS OF EVERY DESCRIPTION.
ELEVATORS.

GRINDING

DISINTEGRATORS, will grind anything.
GRANITE EDGE RUNNER MILLS, &c., &c.

ABERDEEN.

London Office: 64, Mark Lane, E.C.

The List will be opened on Tuesday, the 5th December, and closed on Thursday, the 7th December, 1899, at 3 o'clock p.m., for both Town and Country.

The Electrolytic Alkali Company Limited,

("HARGREAVES-BIRD" PROCESS)

Incorporated under the Companies' Acts, 1862 to 1898, whereby the liability of Shareholders is limited to the amount unpaid on their Shares.

CAPITAL - - - £500,000,

DIVIDED INTO

200,000 Seven per Cent. Cumulative Preference Shares (preferential both as to Capital and Dividend) of £1 each, and 300,000 Ordinary Shares of £1 each.

PRESENT ISSUE

£300,000, of which £200,000 WILL BE AVAILABLE for the PURCHASE of LAND, the ERECTION of WORKS and PLANT, and for WORKING CAPITAL, &c.

SUBSCRIPTIONS ARE NOW INVITED FOR—

100,000 Seven per Cent. Cumulative Preference Shares of £1 each, and
150,000 Ordinary Shares of £1 each. 50,000 Ordinary Shares are reserved as part of the consideration to be paid to the Parent Company.

Payable:—**2s. 6d.** per Share on Application, **2s. 6d.** on Allotment, and the Balance in three equal calls at intervals of not less than two months.

In the Allotment of Ordinary Shares, preference will be given to Consumers of the Products and to applicants for both classes of Shares.

Directors—

JOHN BARR, Esq., J.P. (Vice-Chairman Edmund Potter & Co., Limited, Calico Printers, Manchester and Dinting), Dinting Lodge, Dinting.
† ALFRED E. FLETCHER, Esq., F.I.C. (Late Her Majesty's Chief Inspector of Alkali Works), Coombe Lea, Dorking.
Colonel ZECHARIAH JOHN HEYS, J.P. (Z. Heys & Sons, Calico Printers; Chairman, Paisley and Barrhead District Railway Co.; Provost of Barrhead; Director, Shanks & Co., Limited, Sanitary Engineers), Stonehouse, Barrhead, Glasgow.
† JAMES A. MORRICE, Esq. (Jas. Anderson & Co., Chemical Manufacturers, Director of Makins, Limited), 124, St. Vincent St., Glasgow.
WILLIAM THOMSON, Esq., F.R.S.E., F.I.C., F.C.S., etc., (Crace-Calvert and Thomson), Royal Institution Laboratory, Manchester.
* † CHARLES C. CONNOR, Esq., J.P., F.C.S. (Ex-Mayor of Belfast), 4, Queen's Elms, Belfast.

† Shareholders in the Parent Company.
* Being a nominee of the Parent Company, will join the Board after the first allotment.
The Parent Company have also the right to nominate an additional Director.

Bankers—

THE LONDON, CITY AND MIDLAND BANK, LIMITED, London, and its Branches and their Agents.
THE CLYDESDALE BANK, LIMITED, Glasgow, and its Branches.

Solicitors—

ALSOP, STEVENS, HARVEY & CROOKS, 14, Castle Street, Liverpool.

Auditors—

FRED SCOTT, MORRIS & Co., Chartered Accountants, 33, Brazennose Street, Manchester.

Secretary and Offices (pro tem.)—

JAMES BARRON, FARNWORTH, WIDNES, Lancs.

PROSPECTUS.

This Company has been formed to acquire from the General Electrolytic Parent Company Limited, the "Hargreaves-Bird" and other Electrolytic Patents for the United Kingdom, fourteen in number, and dated from the 10th October, 1892, to the 8th May, 1899, together with all further additions and improvements thereon to which the Parent Company now is or may hereafter become entitled, and to manufacture by electrolysis under these Patents, Alkali, Chlorine, Bleaching Powder, and other products.

The Patents were purchased from the patentees, James Hargreaves and Thomas Bird, by the Parent Company, and works were established by the Parent Company at Farnworth, Widnes, where the details of the process have been worked out with a full-sized commercial plant.

THE well-known COMPANY OF SAINT GOBAIN, FRANCE, the Proprietors of twenty-one Chemical and other Works in active operation, and the makers of large quantities of Bleaching Powder, HAVE PURCHASED THE FRENCH PATENTS.

THE MAGNITUDE OF THE ALKALI MANUFACTURE may be estimated from the fact that, according to the Government Alkali Report for 1896, **792,506 tons of salt were decomposed in that year** in this industry in the United Kingdom alone. **The present issue of capital of this Company will suffice to treat less than one-ninetieth part of that quantity,** so that there is ample margin for *extension.*

The following are Reports, or epitomised Reports, which have been obtained by the Parent Company on the process:—

UNIVERSITY COLLEGE,
LONDON, 30th October, 1899.

"*The General Electrolytic Parent Company Limited.*

GENTLEMEN,

At your request I have carefully examined your process and tested the products obtained therefrom, and beg to lay before you my epitomised report as follows:—

The "Hargreaves-Bird" process is, so far as I can judge, entirely novel and, according to Counsel's opinion, is protected by Master Patents.

The Cathodes being unsubmerged the Alkali formed thereon is instantly removed in a high state of purity and in strong solution (made with distilled water) by the action of steam and the products of the combustion of coal.

The Cathodes act as mechanical supports to the diaphragms, which permit the free passage of the Alkali under the influence of the electric current, and yet retain the salt solution practically without leakage. This enables cells of very large dimensions to be employed.

Each cell has 100 square feet of Cathode surface, and with 23 amperes per square foot at an average electro-motive force of 3·6 volts, produces 233 lbs. of Soda Ash in 24 hours. I found the current-efficiency to exceed 97 per cent., which is exceedingly high.

The brine flows direct to the cells, where it is at once decomposed into Sodium and Chlorine, and the cost of the salt is merely that of pumping, which on the Company's property I am informed would not amount to more than 2d. or 3d. per ton, while the ordinary Salt used in the Leblanc Process costs about 7s. per ton.

The process possesses the following advantages:—

(1) ***The yield of products per ton of salt decomposed is greater and the cost less than by any other process.***

(2) ***The saving in raw materials and labour is enormous.***

(3) ***The process is simple, automatic, and continuous, both the Alkali and Chlorine being withdrawn immediately they are produced.***

(4) ***Ordinary workmen can conduct the manufacture without continual vigilance on the part of scientific inspectors, or fear of interference by Sanitary Authorities.***

(5) ***The solutions obtained require but little concentration to form Crystals, Soda Ash, or any desired Product of the purest quality.***

(6) ***The apparatus is simple in construction and occupies little space. No moving parts, agitating or refrigerating appliances are required; consequently depreciation of plant is small.***

(7) ***Excepting ashes from fuel there are no waste products; even the flue gases from the boiler furnaces are utilised.***

This process is one of the most beautiful as regards simplicity and efficiency I have ever seen, and the figures I have given show that under efficient management it should prove a great commercial success.

I remain, yours faithfully, WILLIAM RAMSAY
(Professor of Chemistry),
LL.D., F.R.S., D.Sc., F.I.C., &c.

4, NEW COURT, LINCOLN'S INN, LONDON, W.C., October 27th, 1899.

"Messrs. the General Electrolytic Parent Company, Limited,

GENTLEMEN,

We have carefully examined and tested your process, and can report that the margin is so great that a very large profit should accrue even if the selling prices of the products were considerably reduced. We think the directors have every reason to be satisfied with having achieved so remarkable a technical success.

We remain, yours faithfully, CROSS & BEVAN,"
(Consulting Chemists).

CITY ANALYST'S AND GAS EXAMINER'S LABORATORY,
156, BATH STREET, GLASGOW, 30th October, 1899.

"The General Electrolytic Parent Co., Limited.

GENTLEMEN,

Having most carefully examined your process, and tested both quantities and qualities of the products therefrom, I am clearly of opinion that it only requires fair skill and management to make it a thorough commercial success. THE PROCESS HAS BEEN THOROUGHLY PROVED WITH A FULL-SIZED COMMERCIAL PLANT.

I remain, yours faithfully, R. R. TATLOCK, *Public Analyst for the City of Glasgow, etc"*
(F.R.S.E., F.I.C., &c., *Consulting Chemist.)*

The following opinion on the principal patents was obtained in 1895 by the Parent Company from the eminent Counsel, Mr. J. FLETCHER MOULTON, Q.C., F.R.S., M.P.:—

"I have examined the plant at work at Farnworth-in-Widnes upon the manufacture of Soda Ash and Crystals and Chlorine, under the superintendence of Mr. Hargreaves and Mr. Luke Hargreaves, and I am of opinion that such plant is in accordance with the claims of Hargreaves' Patents, and is validly protected by them. J. FLETCHER MOULTON.

May 1st, 1895. Temple."

CLUN HOUSE, SURREY STREET, LONDON, W.C., 22nd June, 1899.

"In view of the results of extensive searches which have been made, not only here but in the German and United States Patent Offices, I am of opinion that the Hargreaves-Bird method of decomposing sodium chloride and other salts possessed distinct novelty at the date of the Patent therefor. An essential feature of this process is the employment of an exposed (unsubmerged) cathode surface whereon the sodium oxide (caustic soda) is yielded, endosmosmic action being thereby prevented and a practically pure product rendered obtainable.

G. G. M. HARDINGHAM."
(C.E., M. Inst. Mech. E. Fellow of the Chartered Institute of Patent Agents—Member of Council.)

Works and Estimated Profits.

It is proposed to erect new works with suitable plant and machinery upon a new site at Middlewich, Cheshire, comprising 73a. or. 2p., and connected by siding with the L. & N. W. Railway which has been acquired by the Parent Company, and will be transferred to the Electrolytic Alkali Company Limited. The following is a report obtained by the Parent Company with reference to this site from Professor W. Boyd Dawkins, M.A., F.R.S., F.G.S., of the Victoria University.

OWENS COLLEGE,
MANCHESTER, *3rd November, 1899.*

"To the Chairman and Directors of the General Electrolytic Parent Co. Limited,

GENTLEMEN,

I have examined the site which you have purchased for your Electrolytic Alkali Works and was previously well acquainted with the neighbourhood. The site in question comprises upwards of seventy acres of freehold land, underlaid by beds of Rock Salt 180 feet in thickness, and on the "brine flow," at Middlewich, Cheshire, in the heart of the Chemical and Salt Industries, where the best quality of fully saturated brine in the world can be obtained at the cost of pumping into your Electrolytic Cells. Being outside the "subsidence areas" the brine raised is free of the charges imposed by Act of Parliament in other Districts. There is an abundant supply of fresh water. It has a good road frontage and is bounded for upwards of a mile by the London and North-Western Railway, and by the Trent and Mersey Canal. In a word this property is singularly well adapted for the establishment of an industry based on a large supply of Salt.

I am, Gentlemen, yours faithfully, W. BOYD DAWKINS."

PLANS AND SPECIFICATIONS for the construction of works on the above site estimated to be sufficient for the production by the process of the quantities of commodities undernoted have been obtained by the Parent Company from Mr. L. Hargreaves, the Manager of the Works at Farnworth above referred to, and estimates and tenders for such construction have been obtained from firms of high standing.

These Estimates and Tenders together with the books kept at Farnworth, Widnes, have been submitted by the Parent Company to Messrs. Fred Scott, Morris, and Co., Chartered Accountants, Manchester, from whom the following report has been obtained:—

33, BRAZENNOSE STREET,
MANCHESTER, *9th November, 1899.*

"To the Directors of the General Electrolytic Parent Co. Limited,

GENTLEMEN,

We have examined the estimates and tenders for the construction of works for the projected new Company (The Electrolytic Alkali Company Limited) at Middlewich, Cheshire and find that they amount to £114,724. This sum embraces all the buildings and plant shown by the certificates of your experts, mentioned in the previous page, to be necessary for the production of the quantities of commodities stated below. If therefore you allow, as proposed, £140,000 for works, plant, &c., the provision should be ample for all contingencies.

We have examined the books kept at Farnworth, and calculate from the quantity of Alkali and Bleaching Powder made at the works that there will be an annual yield of 27,177 tons of products, corresponding with 8,917 tons of Salt decomposed. The test made by Professor W. Ramsay under ordinary working conditions shows a decomposition of 9.003 tons of Salt with a corresponding increase of products. Our calculations show the following results:—

		Prices current 4th November, 1899, as per "The Chemical Trade Journal."	
12,883 tons of Bleaching Powder	.. £5 15 0	£74,088	0 0
4,630 " " Bicarbonate of Soda	.. 6 12 6	30,673	0 0
1,780 " " Caustic Ash ..	.. 4 5 0	7,565	0 0
7,832 " " Soda Crystals ..	.. 2 15 0	21,675	0 0
27,177		£134,001	0 0

The working expenses, based on the experience of the Farnworth Works, including trade discounts, commission on sales, depreciation of plant, buildings, &c., and all general charges and contingencies would be approximately £72,000.

The nett result, assuming present prices for products to be maintained, would therefore be as follows:—

Amount realised from 27,177 tons of products ..	£134,001	0 0
Less working expenses	72,000	0 0
Nett Profit ..	£62,001	0 0
This amount would allow for payment on 100,000 Preference Shares—7 PER CENT.	£7,000	0 0
and on 200,000 Ordinary Shares—UPWARDS OF 27 PER CENT.	55,001	0 0
	£62,001	0 0

We are, Gentlemen, Yours faithfully,
FRED SCOTT, MORRIS & CO.,"
(Chartered Accountants).

Several applications for license to manufacture in Great Britain have been received by the Parent Company, and these will be handed over to be dealt with by this Company.

The consideration to be paid to the Parent Company for the United Kingdom Patents is £100,000, payable in the following manner, namely: as to one-fourth in cash, as to one-half in fully paid-up Ordinary Shares of this Company, of which 7,500 are to be issued to Charles C. Connor, Esq., and 7,500 to Douglas Herman, Esq. (Directors of the Parent Company), as nominees of the Parent Company, and in consideration of their past services in developing the Patents, and as to the remaining one-fourth in cash or fully paid-up Ordinary Shares, or partly in cash and partly in Ordinary Shares at the option of this Company.

The price to be paid to the Parent Company for the land at Middlewich will be the same as that recently paid by the Parent Company itself, including commissions and expenses, and interest thereon to the date of the completion of the sale to this Company, and will not exceed the sum of £15,000, which will be payable in cash.

The Parent Company is the promoter of this Company, and has fixed the amount of the consideration, and agrees to pay all expenses up to allotment, except registration fees and stamp duty.

The following Contracts have been entered into:—

An Agreement, dated the 1st day of December, 1899, and made between the General Electrolytic Parent Company Limited of the first part, Charles Cunningham Connor and Douglas Herman of the second part, and The Electrolytic Alkali Company Limited of the third part.

An Agreement, dated the 1st day of December, 1899, and made between The General Electrolytic Parent Company Limited of the one part and The Electrolytic Alkali Company Limited of the other part.

There may be other Contracts entered into by the Vendor Company including agreements for providing a portion of the capital now offered, to which this Company is not a party, which may be Contracts within the meaning of the 35th section of the Companies Act, 1867, and applicants shall be deemed to have had full notice of such Contracts and to have agreed with this Company, as Trustees for the Directors and other persons liable, to waive any claims they may have against them for not more fully complying with that section, and subscriptions are received upon that condition only.

The above-mentioned Contracts and Reports, together with the 14 British Patents, and the Memorandum and Articles of Association, and also samples of the products manufactured by the Parent Company at Farnworth Widnes can be inspected by intending investors at the offices of the Company's Solicitors. Samples of the products can also be inspected at the offices of the Company's Auditors.

It is proposed to apply to the London, Liverpool, and Manchester Stock Exchanges for settlements and quotations of the Company's Shares.

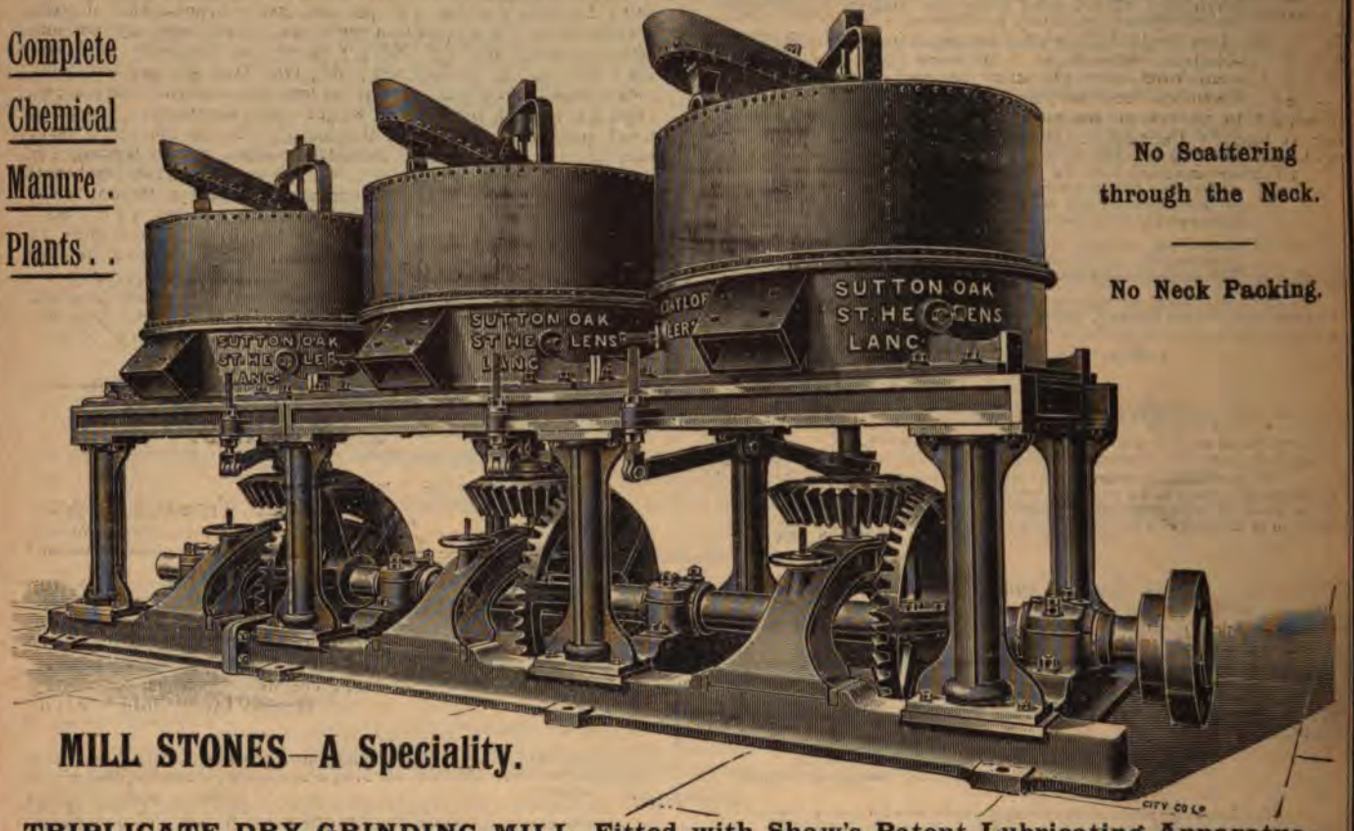
Applications for Shares should be made on the form accompanying this Prospectus, and forwarded to the Bankers or the Secretary of this Company, with a remittance for the amount of the deposit. If the full number of Shares applied for is not allotted, the surplus of the amount paid on deposit will be applied towards the amount due on the Shares allotted, and if no allotment is made the deposit will be returned in full. Prospectuses and Forms of Application for Shares may be obtained from the Bankers, Solicitors, Auditors, and the Secretary of the Company.

FARNWORTH, WIDNES, LANCS.,
2nd December, 1899.

CRONE & TAYLOR, ENGINEERS AND SPECIALISTS.

Makers of all kinds of Grinding Machinery, for Cement, Phosphate, Plaster, Paint, &c.

Complete Chemical Manure Plants..



No Scattering through the Neck.

No Neck Packing.

MILL STONES—A Speciality.

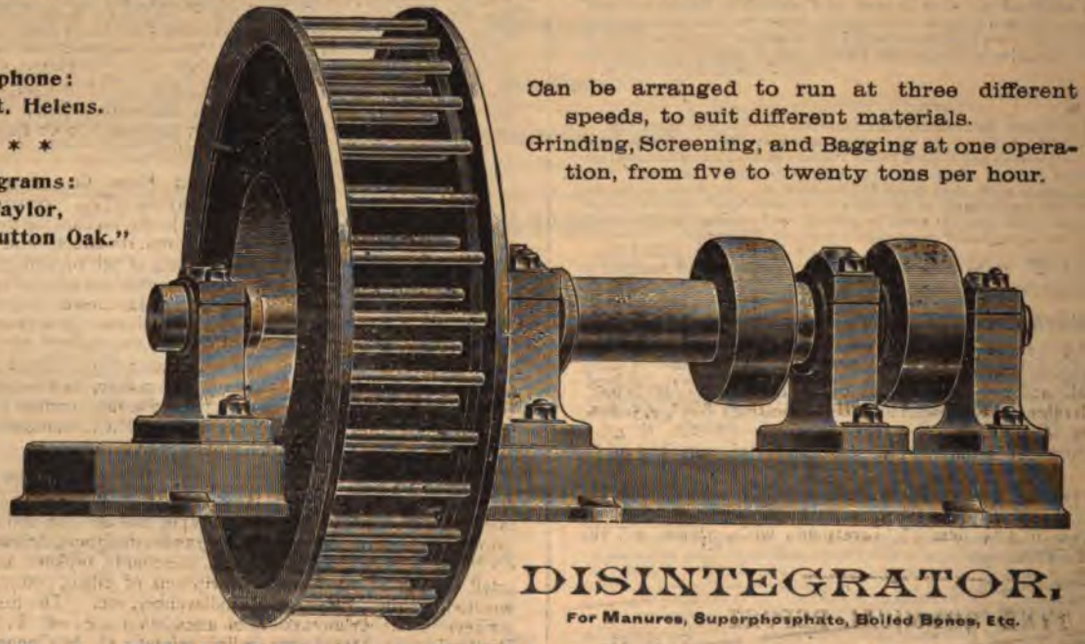
TRIPLICATE DRY GRINDING MILL, Fitted with Shaw's Patent Lubricating Apparatus.

Telephone: 152, St. Helens.

* * *

Telegrams: "Crone Taylor, Sutton Oak."

Can be arranged to run at three different speeds, to suit different materials. Grinding, Screening, and Bagging at one operation, from five to twenty tons per hour.



DISINTEGRATOR,

For Manures, Superphosphate, Boiled Bones, Etc.

CRONE & TAYLOR, SUTTON OAK, ST. HELENS, LANCS.

OULTON & CO., LTD., LAMBETH, LONDON,

UFACTURERS OF
ONEWARE
EMICAL
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OF
DESCRIPTION.

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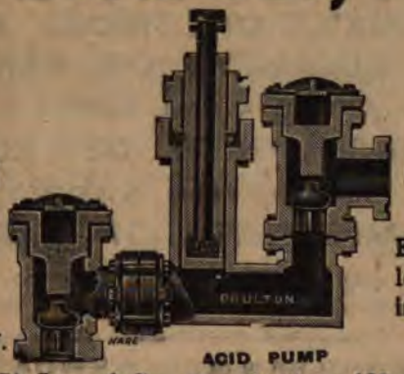

ACID PUMP

IMPROVED STONEWARE ACID PUMPS.

Each Pump prior to leaving the Factory is put into actual work and tested.

WROOMS: St. James's Sq., Manchester; 100, Soho St., Liverpool. Granville St., Birmingham; 38 and 40, Bothwell St., Glasgow; 6, Rue de Paradis, Paris.

PETER SPENCE & SONS,
ester Alum Works, Manchester; and Goole Alum Works, Goole.
SOLE MANUFACTURERS OF
ULPHALUMINE
(THE PUREST BRAND OF SULPHATE OF ALUMINA).
CRYSTAL ALUM (LUMP AND GROUND).
SOLE MANUFACTURERS OF THE WELL-KNOWN **ALUMINOFERRIC.**

IMICE STONE
ECIPITATED CHALK
ZINC OXIDE
ZINC SULPHATE
VARNISHES.
SON & CO., 1, Creechurch Lane, LONDON, E.C.
TELEPHONE 2,889 AVENUE.

ANGANESE
Up to 95 %.
UOR SPAR,
finest 98/99 per cent. quality.
DIEMAR, Elgersburg, Germany.

MANGANESE, Up to 95%
FLUOR SPAR, finest 98/99 per cent white quality.
WILHELM MINNER, Arnstadt, Germany.

ails: St. Helens.
TELEPHONE: No. 20, St. Helens.
CHEMICAL PLANT.
W. NEILL & SON.
SPECIALITIES:

ENGINES — High or Low Speed.
DRIVING ENGS.
GRINDING MLS. — All high efficiency.
FILTER PRESSES — For all purposes.
Castings. Burner Fronts, etc.
BLOWING ENGS
PUMPS — of every description, with Improved Valves.
AIR COMPRESSRS. — Vertical and Horizontal

GLYCERINE PLANTS.
St. Helens Junc., Lancs.
SOAP MACHINERY.
Tanks and

Tenders.

GREAT WESTERN RAILWAY.

THE Directors of this Company are prepared to receive Tenders for the purchase of the following materials, viz :—

1.—Gas Tar and Ammoniacal Liquor.
2.—Hydrocarbon from Oil Gas Works.
3.—Furnace Slag, Fettling and Mill Scale.
4.—Tarpaulin Cuttings and Sheet Ties.

The materials in each case to be delivered as produced at the Company's Works during the half-year ending the 30th June, 1900.

Forms of Tender (upon which alone Tenders will be received) may be obtained on application to the undersigned, by whom Tenders, marked outside "Tender for Gas Tar," &c, as the case may be, will be received on or before Tuesday, the 19th instant.

The Directors do not bind themselves to accept the highest or any Tender.

G. K. MILLS, Secy.
Paddington Station, London, 4th December, 1899.

THE CLEANSING COMMITTEE of the MANCHESTER CORPORATION are prepared to RECEIVE TENDERS for twelve months' SUPPLIES of :—

Lime and Lime Ashes.	Spirits of Salts.
Saddlers' Ironmongery, &c	Caustic Bottoms.
21 oz. Glass.	Caustic Soda (98 per cent).
Lead (sheet and pipe).	Chloride of Lime.
Iron Castings.	Resin.
Malleable Iron Castings.	Creosote Oil.
Gun Metal Castings.	Pitch.
Phosphor Bronze Castings	Mineral, Neatsfoot, Rape,
Iron & Steel (bars & sheets).	and Paraffin Oils.
Brown Oil of Vitriol.	

Specifications may be obtained from Mr. G. Plant Superintendent of the Cleansing Department, Town Hall, Manchester. Tenders must be sent in before five o'clock on Wednesday, 13th December. The Committee do not bind themselves to accept the lowest or any tender.

WM. HENRY TALBOT, Town Clerk.

Miscellaneous.

☞ **Replies to Advertisements addressed to the "Chemical Trade Journal" Office, are forwarded to Advertisers, post free.**

PRUSSIAN and ULTRAMARINE PASTE BLUES for Paper Makers, B.O.V., D O V., R.O.V., free from arsenic, — Milnsbridge Chemical Co., Huddersfield.

CHLORIDE OF MAGNESIUM. —Cheap Process wanted for making direct from raw material readily obtainable or producing as a Bye-product. —Write, "Magnesium 54," *Chemical Trade Journal* Office, Manchester.

HYDROCHLORIC ACID (Tower Salts)—Advertiser would rent small Plant or join in the manufacture. Could influence business.—Particulars in confidence to "Tower 54," *Chemical Trade Journal* Office, Manchester.

EMERY PAPER.—Wanted, a Foreman who could undertake the management of an Emery Paper Works, with thorough knowledge of plant. Write, stating full particulars, to "Emery," c/o S. Deacon & Co., 154, Leadenhall Street, London, E.C.

SITUATION wanted by Manure Works Foreman; 4 years' practical experience in manufacture of Compound Manures; can take charge of plant if required. Age 32. Highest references.—Apply, "Manure 55," *Chemical Trade Journal* Office, Manchester.

PATENT Suspended Self-balancing Centrifugal DRYING MACHINE, 48-inch copper basket with central bottom discharge valve, with self-contained steam engine, by Manlove Alliott, for sale. Too large for present requirements, and has never been used. Offers invited.—Address Box 405, G.P.O., Manchester.

WATER POWER for Sale, 2,000 H.P., on West Coast of Sweden, in good position for Export to England, Germany, &c.; especially suitable for Carbide Factory.—Address, "Carbide 55," *Chemical Trade Journal* Office, Manchester.

SECOND-HAND 15-ton WEIGHBRIDGE, in good condition.—Apply, first instance, "Weighbridge 55," Chemical Trade Journal Office, Manchester.

Miscellaneous—Cont.

WANTED, 1,500 Carboys of Muriatic Acid per month, free from Arsenic and Sulphate; rails maker's works or delivered buyer's works.—"Arsenic 55," *Chemical Trade Journal* Office, Manchester.

TO SOAPMAKERS, Etc.—GLYCERINE REFINING PLANT For SALE (Scott's Vacuum Process); quite new and in perfect order. —For all particulars apply to James T. R. Wilson, 2, St. Andrew Square, Edinburgh.

FOR SALE, two Copper Vacuum Pans, 10ft. and 10ft. diameter each; one Cast Iron Vacuum Pan, 11ft 6in. diameter; Vacuum Pumps to suit; Installation of Four 42in. Weston Centrifugals, with Driving Engine; Installation of Eight 72in Under-driven Centrifugals, and Engine; Bag Filters; Elevators; Circular Tanks, with stirring gear.—Apply, The Roxburgh Co., Ltd., Greenock.

AGRICULTURAL and Analytical CHEMIST, well up in Sulphuric Acid, Manures of all kinds, Caustic Soda, Bleach, &c. desires situation as Manager, Overseer, or Chemist. Country preferred. Highest references.—"Agricultural 52," *Chemical Trade Journal* Office, Manchester.

MANAGING CHEMIST, Ph.D., over four years' practical experience in Coal Tar Products and Aniline Colours, seeks Position in Tar Works or Fine Chemical Manufactory. First class references.—Address, "Z 53," *Chemical Trade Journal* Office, Manchester.

CRYSTALLIZING PANS.—Wanted, about six, second-hand, dish-shaped preferred, size about 6ft. by 3ft.—Address, "Crystals 54," *Chemical Trade Journal* Office, Manchester.

YOUNG CHEMIST, Ph.D., seeks employment in the Chemical Laboratory of a Scientist or Manufacturing Chemist; good references.—Address letters "P.H.," *Chemical Trade Journal* Office, Manchester.

WOOD ACID FOR SALE.—For particulars, apply to "Acid 54," *Chemical Trade Journal* Office, Manchester

VERTICAL DUPLEX GAS COMPRESSOR on Sale, steam cylinders 13in. diameter, gas cylinders 8in. diameter, stroke 12in, fitted with metallic valves and seats, complete on strong bed plate, nearly new; can be seen on appointment.—Brotherton & Co, Ammonia Works, Wakefield.

WANTED, by Chemist, Situation in Dyeing, Printing, or Colour Works; 3½ years' experience in dyeworks' laboratory, good knowledge of anilines, highest references. — Address, "Colour 54," *Chemical Trade Journal* Office, Manchester.

CHEMIST, acquainted with the Cyaniding of Gold Ores will shortly be open for an engagement. Presently abroad. Will be pleased to open communications with some firm if they will kindly address in first instance to "Abroad 54," *Chemical Trade Journal* Office, Manchester.

RECIPES Wanted for all Materials used by Tanners, Curriers, Leather Dressers and Finishers, Boot Manufacturers, &c., such as Quick-Blacks, Leather Stains, Burnishing Inks, Waxes, Finishes, &c.—Address, "Stains," *Chemical Trade Journal* Office, Manchester.

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ON SALE.—WROUGHT IRON TANK, 14ft. x 7ft. 6in. x 2ft. deep, good condition, angle iron rim outside round top and bottom. VERTICAL *STEEL BOILERS (new) to work at 80lbs.*; one 6ft. 8in. x 2ft. 9in., one 6ft x 3ft., one 7ft. 7in. x 2ft., one 7ft 6in. x 3ft 3in. *CORNISH STEEL BOILERS (new) to work at 80lbs.*; one 12ft. x 5ft., one 15ft. x 5ft.—T. & R. Lees, Engineers, Hollinwood.

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PURE WHITE SULPHATE OF ALUMINA, BLANC FIXE, CHLORIDE, NITRATE, AND SULPHIDE OF BARIUM.

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Sealed Tenders, endorsed "Tender for Oxide," and addressed to the Chairman of the Gas Committee, to be delivered not later than Thursday, the 4th January, 1900.

By Order.

WM. HENRY TALBOT,
Town Clerk

Town Hall, Manchester,
8th December, 1899.

Miscellaneous.

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WANTED, Pamphlet on Charcoal Recipes, or Address of Publishers.—Address, "Pamphlet 56," *Chemical Trade Journal* Office, Manchester.

ANTI-FOULING Compositions and Copper Paints in various colours, established 1878. Pronounced unequalled in all climes by the principal Steamship and Yacht owners. The Inventor, having retired from the business, will SELL the FORMULAS, including the Manufacture of the Chief Chemicals (with personal instructions, if desired), or arrange large supplies. Excellent Boiler Composition, &c. A genuine opportunity for Enterprise. Correspondence invited.—Address, J. W. Rodwell, Grimsby.—Inventor and late Manufacturer of High-class Compositions and Commercial Chemicals.

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SECOND-HAND 15-ton WEIGHBRIDGE, in good condition.—Apply, first instance, "Weighbridge 55," *Chemical Trade Journal* Office, Manchester.

MANAGER or CHEMIST, over 13 years' practical experience in Destructive Distillation, Coal and Wood Tar Products, Sulphate of Ammonia, etc., seeks Position in Chemical Works at home or abroad. First-class references.—"F.C.S. 56," *Chemical Trade Journal* Office, Manchester.

TO Manufacturers and Others.—Chemist, having considerable technical experience in the control of chemical operations and erection of plant, is open to advise manufacturers upon their processes, or to undertake analytical and investigation work in connection with same.—Apply, "Technical," Chemical Trade Journal Office, Manchester.

Miscellaneous—Cont.

MANUSCRIPTS and RELIABLE RECIPES Wanted for Chemical Trades Industries and Manufactures and all subjects relating to Oils, Colours, Varnishes, Fats, Tallows, Greases, Lubricants, Soaps, Glues Polishes, and Allied Trades.—Address particulars, "E.W.," at Horncastle's, Cheapside, London.

FOR SALE, two Copper Vacuum Pans, 12ft. and 10ft diameter each; one Cast Iron Vacuum Pan, 11ft 6in. diameter; Vacuum Pumps to suit; Installation of Four 42in. Weston Centrifugals, with Driving Engine; Installation of Eight 72in Under-driven Centrifugals, and Engine; Bag Filters; Elevators; Circular Tanks, with stirring gear.—Apply, The Roxburgh Co., Ltd., Greenock.

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CHEAP GAS for ENGINES.—Gas GENERATORS and PLANT, for the economical and efficient propulsion of gas engines.—Address, Hydro-Kinetic, Princes Chambers, Birmingham.

COMPRESSORS for GAS and AIR. —MACHINES of various sizes for the highest pressures, on the one, two, three, or four-stage principle —Address, Hydro-Kinetic, Princes Chambers, Birmingham.

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Vegetable and Animal Size,

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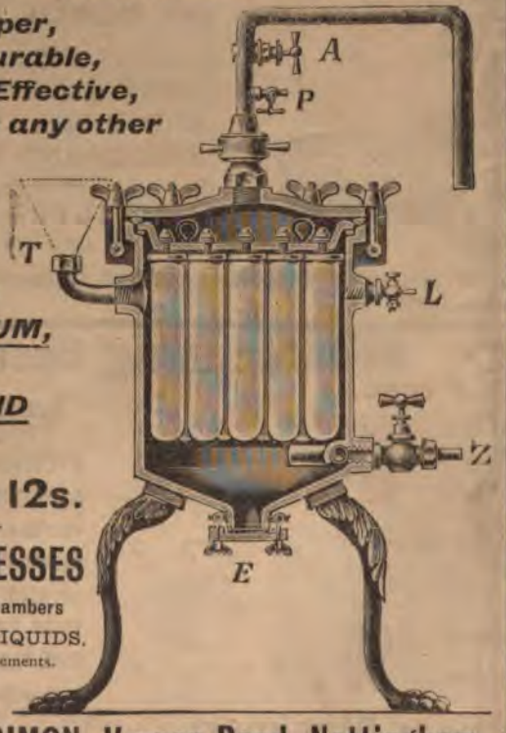

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SPECIALISTS in DESTRUCTIVE DISTILLATION PLANT for WOOD, PEAT, LIGNITE, COAL, and TAR.

Complete Apparatus for Refining the Distillation Products.

SPECIAL PLANT, Highly Perfected and Tested in Practice, for

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Highest Output. Products of First-Class Quality.
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Naphtha, for Burning
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Beaufoy & Co., South Lambeth, London.
United Alkali Co., Ltd., 30, James-street, Liverpool.

Acetate of Lime—

Acetate of Soda—

Acetone—
Wallace, H. & Co., 5, Fenchurch-street, London, E.C.

Acid-Proof Enamelled Chemical Plant—
C. Harzer, 79½, Gracechurch-street, London E.C.

Air Compressors—
Daglish, R., & Co., St. Helens, Lancashire.—*See Advt*
Meldrum Bros., Atlantic Works, City-road, Manchester.
Neill, W. & Son, St. Helens.
Scott, Geo. & Son, 44, Christian-street, London, E
Walker Bros., Pagefield Ironworks, Wigan.

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Animal Products Co., Benson-street, Liverpool.

Alkali—
Brunner, Mond & Co., Limited, Northwich.—*See Adv.*
Fuerst Bros., 17, Philpot-lane, London, E.C.
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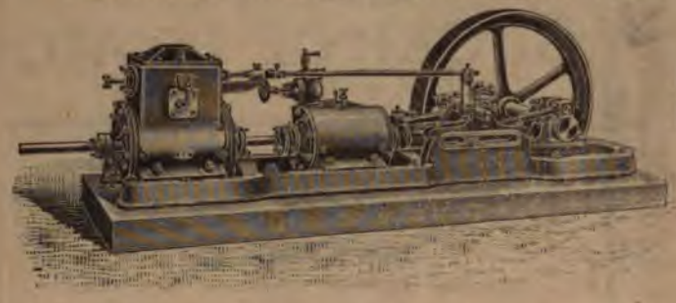

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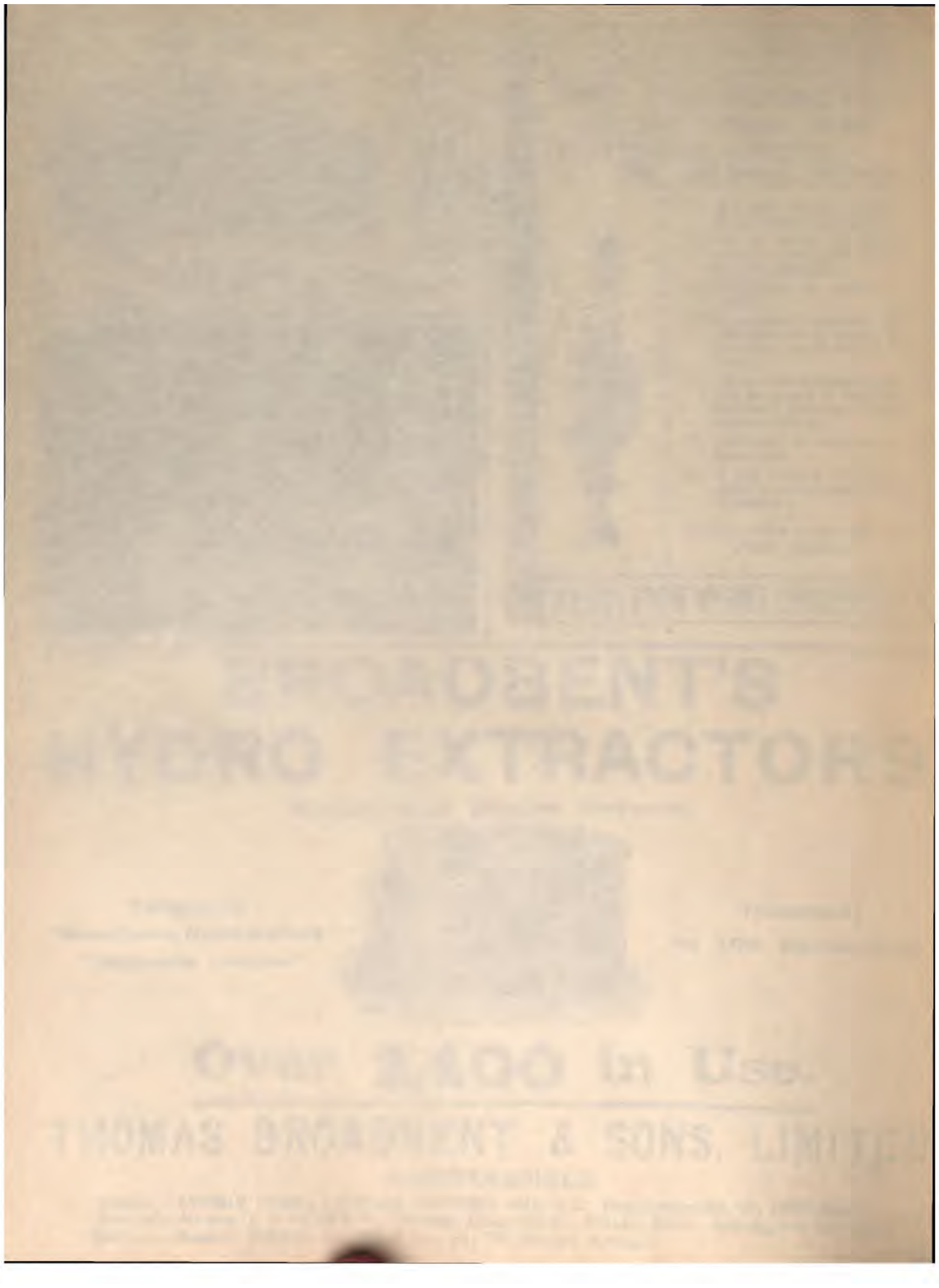
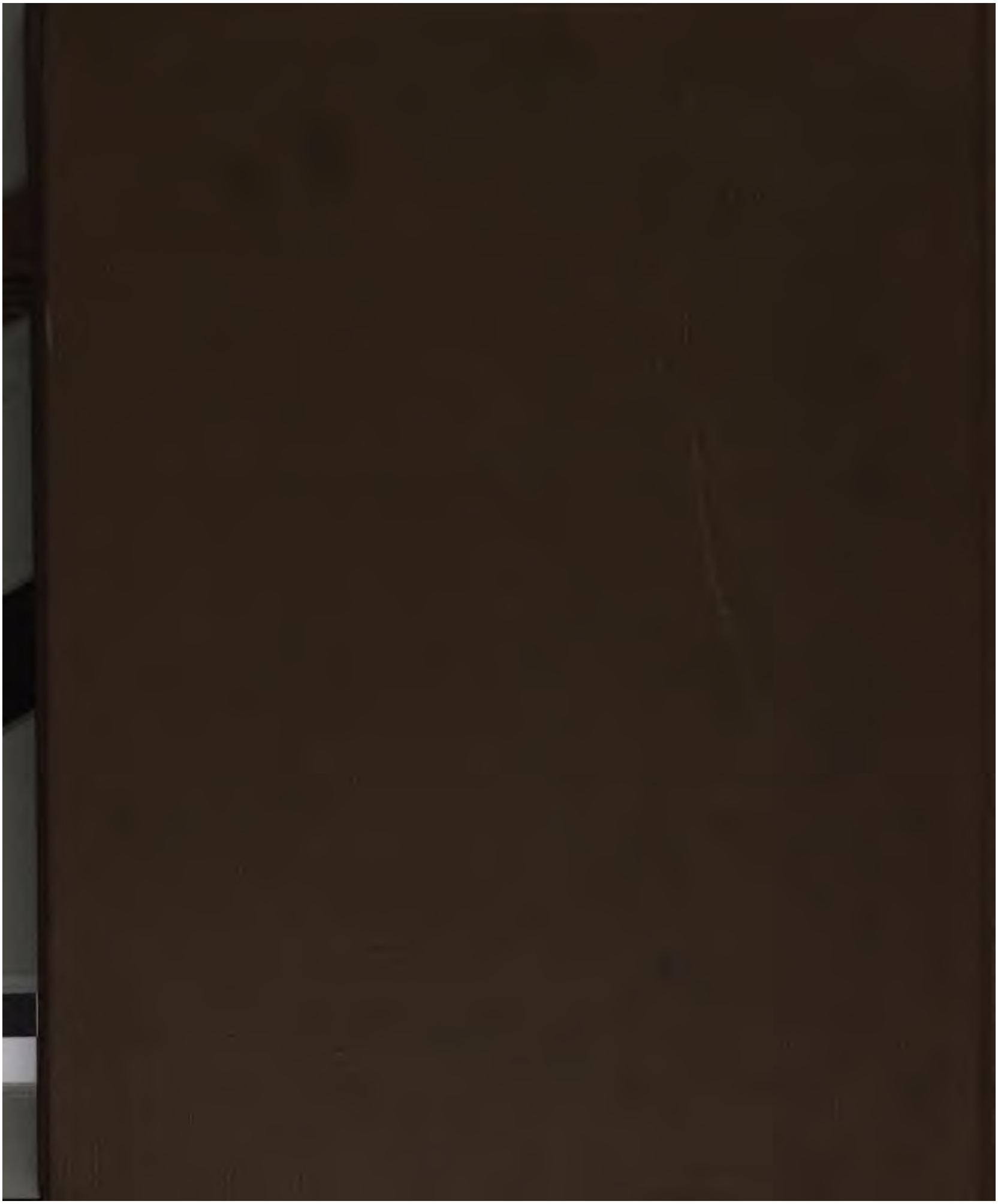
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